

"City of Champions"

DEPARTMENT OF PUBLIC WORKS OFFICE OF THE COMMISSIONER

Michael L. Thoreson
COMMISSIONER

April 20, 2010

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I. Andrew Goldberg
Assistant Attorney General
Massachusetts Office of the Attorney General
One Ashburton Place
18th Floor
Boston, MA 02108

**Subject: Brockton, Massachusetts
Wastewater Collection/Treatment Facility
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
2010 - 1st Quarter Report**

Dear Mr. Goldberg:

The following is a quarterly report for your consideration regarding the City's Consent Decree Civil Action referenced above. This information is an update of the individual ongoing wastewater projects within the City plus other relevant data, in accordance with Section 42 of the Consent Decree.

Section 42 a - Activities Directed at Compliance with the Consent Decree:

1. Miscellaneous Sewer Pipe Repair and Replacement

The City has been performing sewer rehabilitation based on the findings of the City Wide Sewer System Evaluation Survey (SSES). In addition, there are several private contractors performing sewer rehabilitation throughout the City. As a result of this work, many gallons of extraneous flow have been removed from the sewer system. The attached Table 1 is a summary of sewer system repairs documented since 1990. The City and private contractors repaired structural defects identified in the SSES during the 1st quarter of 2010 and removed several sources of inflow, which account for removal of 116,360 gpd of extraneous flow. This activity is required by Sections 35 through 39 of the Consent Decree.

2. Phase VIII Sewer System Rehabilitation

Construction commenced during this quarter. The construction value is approximately \$1,000,000 and SRF assistance is being provided. This activity is required by Sections 35 through 39 of the Consent Decree.

3. Phase IX Sewer System Rehabilitation

Construction commenced during this quarter. The construction value is approximately \$2,300,000 and SRF assistance is being provided. This activity is required by Sections 35 through 39 of the Consent Decree.

4. Local and State Funding

The City is proceeding with the SRF funding package totaling \$99.725 million, which matches the City authorization for bonding to cover the final phases of rehabilitation. These funds are required for the upgrade of the wastewater treatment facility and for rehabilitation of the collection system.

5. I/I Reduction by Whitman and Abington

Both Whitman and Abington are required to develop an I/I rehabilitation plan as defined in the new NPDES permit for the Brockton WWTF. Both have been provided a copy of the Consent Decree and are currently pursuing I/I studies and rehabilitation. This activity is required by Section 40 of the Consent Decree.

6. Private Inflow Reduction Program

The City completed the follow up house-to-house inspection program during this period. This activity is required by Sections 35 through 39 of the Consent Decree.

7. Wastewater Treatment Facility Upgrade

All three Phases of the WWTF Upgrade have reached substantial completion. These activities are required by Section 23, 24 and 25 of the Consent Decree.

Section 42 b - Plans, Reports, and Deliverables Completed and Submitted during this Period:

1. Private Inflow Reduction Program

The final report for the 2009 follow up house-to-house inspection program was developed and submitted during this period (report sections attached.)

Section 42 c - Activities Anticipated During the Next Reporting Period:

1. The City will submit a quarterly report.
2. Miscellaneous Sewer Pipe Repair and Replacement by City Personnel

Additional sewer rehabilitation by City staff based on the findings of the City Wide Sewer System Evaluation Survey (SSES) is expected to continue during the next reporting period.

3. Phase VIII Sewer System Rehabilitation Design

Construction of this project will continue during the next reporting period.

4. Phase IX Sewer System Rehabilitation Design

Construction of this project will continue during the next reporting period.

5. Wastewater Treatment Facility Upgrade

Compliance with the NPDES permit is expected to continue during the next reporting period, as required in Section 34 of the Consent Decree.

6. Supplemental Environmental Projects

It is expected that work on the Lead SEP will continue during the next reporting period. It is also expected that the scope of the receiving water assessment SEP will be completed during the next quarter, in advance of field work which is tentatively scheduled to commence in the third quarter of 2010.

Section 42 d - Anticipated Non-Compliance During the Next Reporting Period:

During the next quarter it is expected, based on the fact that Brockton has reached significant completion with all Phases of the upgrades, that the treatment facility should continue operations without effluent violations of its NPDES permit.

Section 42 e - Non-Compliance during the Current Reporting Period:

During the 1st quarter of 2010, the City of Brockton WWTF experienced no effluent violations in January or February but due to the record rainfall in

March there were violations reported which were a result of flows in excess of 65MGD with an actual peak of over 70MGD.

January

NONE

February

NONE

March

3 - Daily Effluent TSS Violations on 3/14 - 3/16

1 - Weekly Effluent TSS Violation

1 - Daily Effluent CBOD on 3/14

The TSS % Removal Efficiency of 85% was not met due to the influent TSS loading being so low due to dilution. Result Reported = 82%

Section 14 - Status of Supplemental Environmental Projects:

1. Receiving Water Assessment SEP (Consent Decree Appendix A)

The City has submitted the draft scope-of-work for the SEP in compliance with the requirements of the Consent Decree. Preliminary comments have been compiled by DEP. Due to higher than normal stream flow in 2009, the first round of field sampling is expected to occur during August 2010 in order to meet the deadlines of the SEP. Scope revisions are pending.

2. Regional Wastewater Management Planning SEP (Appendix B)

In compliance with the requirements of the Consent Decree, the City has disbursed the required funds in the amount of \$75,000 to the Old Colony Planning Council for implementation of the scope-of-work for this SEP.

3. Lead Analysis SEP (Appendix C)

The City has completed all testing of all open schools per the approved scope-of-work for the lead sampling SEP. During the testing program, the City opened two new large schools and closed some schools that had a small number of samples. The sites that have had positive reconfirmed tests are been shut off to public use by the School Department. An exception to this is the greatest number of sinks found in many science labs, where clear signs and teacher notification will prohibit consumption. Preparation of this SEP summary report has commenced. The City has expended approximately \$27,000 to date for this SEP (supporting documentation previously provided.)

Section 73 - Certification by representative of the City

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Closing

We trust this information meets your expectations regarding the required progress report. Please do not hesitate to contact me at 508-580-7135 regarding any questions or comments on this information.

Sincerely,



Michael L. Thoreson
DPW Commissioner
MLT/ss
Enclosures

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David Norton, Water and Sewer Contract Administrator
Lawrence Rowley, Utilities Superintendent
Gregory Roy, CDM Cambridge
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Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
1st Quarter 2010	March 26, 2010	P9: Forest Avenue, replaced 11' of 8" PVC 2+80 to 2+91 (021-024 to 021-021)	180 gpd			
	March 26, 2010	P9: Forest Avenue, replaced 27' of 8" PVC 2+15 to 2+42 (021-026 to 021-024)	180 gpd			
	Jan 2010-March 2010	P8: Rehabilitation of 49 sewer manhole channels and shelves	35,280 gpd			
	Jan 2010-March 2010	P8: Rehabilitation of 162 sewer manhole pipe connections	80,720 gpd		116,360 gpd	
	September 30, 2009	P7: Sinclair Road, 20 VF of Manhole Lining & Pipe Connection Repair at Sewer Manhole 065-060				
	September 30, 2009	P7: Pump Station Drive, 15 VF of Manhole Lining at Sewer Manhole 059-003				
	September 30, 2009	P7: Pump Station Drive, 15 VF of Manhole Lining at Sewer Manhole 059-005				
	September 30, 2009	P7: Easement off of Elliot Street, 19 VF of Manhole Lining at Sewer Manhole 042-010B				
	September 30, 2009	P7: Southland Terrace, 11 VF of Manhole Lining & Pipe Connection Repair at Sewer Manhole 034-023				
	September 30, 2009	P7: Southland Terrace, 11 VF of Manhole Lining at Sewer Manhole 034-022				
	September 30, 2009	P7: Easement off of Southland Terrace, 15 VF of Manhole Lining at Sewer Manhole 034-016				
	September 30, 2009	P7: Easement off of Southland Terrace, 15 VF of Manhole Lining at Sewer Manhole 034-015				
	September 30, 2009	P7: Easement off of Southland Terrace, 15 VF of Manhole Lining at Sewer Manhole 034-014				
	September 30, 2009	P7: Skyview Drive, Pipe Connection Repair at Sewer Manhole 034-012				
	September 30, 2009	P7: Brockton High School R-O-W, 9 VF of Manhole Lining, Pipe Connection Repair, Shelf Repair at Sewer Manhole 028-002				
	September 30, 2009	P7: Southfield Drive, Remove and Replace 300' of 24" RC pipe (062-037 to 065-001A) - Pipe collapsed during CIPP Lining				X
	September 30, 2009	P7: Southfield Drive & Deanna Rd. CIPP Lining 314' of 24" RC pipe (065-088 to 065-001A)				
	September 30, 2009	P7: Sinclair Road, CIPP Lining 252' of 24" RC pipe (065-060 to 065-056)	900 gpd			
	September 30, 2009	P7: Sinclair Road, CIPP Lining 290' of 24" RC pipe (065-061 to 065-060)	5,760 gpd			
	September 30, 2009	P7: Sinclair Road, CIPP Lining 282' of 24" RC pipe (065-062 to 065-061)	11,700 gpd			
	September 30, 2009	P7: Sinclair Road, CIPP Lining 282' of 24" RC pipe (065-063 to 065-062)				
	September 30, 2009	P7: Easement off of Crescent Street, CIPP Lining 372' of 42" RC pipe (055-004 to 055-003)				
	September 30, 2009	P7: Center Street, CIPP Lining 262' of 27" RC pipe (047-005A to 047-004)				
	September 30, 2009	P7: Center Street, CIPP Lining 88' of 27" RC pipe (047-005 to 047-005A)				
	September 30, 2009	P7: Southland Terrace, CIPP Lining 244' of 30" RC pipe (034-023 to 034-022)				
	September 30, 2009	P7: Country Club Lane, CIPP Lining 195' of 36" RC pipe (033-051 to 033-004)				
	September 30, 2009	P7: Country Club Lane, CIPP Lining 304' of 36" RC pipe (033-052 to 033-051)				
	September 30, 2009	P7: Country Club Lane, CIPP Lining 336' of 36" RC pipe (033-053 to 033-052A)	360 gpd			
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 342' of 24" RC pipe (013-062 to 013-061A)				
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 304' of 24" RC pipe (013-065 to 013-064)				
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 228' of 21" RC pipe (013-085 to 013-066)				
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 252' of 21" RC pipe (013-086 to 013-085)				
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 335' of 21" RC pipe (013-087 to 013-086)				
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 250' of 21" RC pipe (013-088 to 013-087)				
	September 30, 2009	P7: Easement thru Golf Course, CIPP Lining 216' of 21" RC pipe (013-089 to 013-088)				
	September 30, 2009	P7: Easement off of Geralynn Drive, Heavy Clean & Re-TV 362' of 24" RC pipe (067-003 to 067-002)				
	September 30, 2009	P7: Easement off of Geralynn Drive, Heavy Clean & Re-TV 215' of 24" RC pipe (067-037 to 067-036)				
	September 30, 2009	P7: Easement off of Geralynn Drive, Heavy Clean & Re-TV 124' of 24" RC pipe (067-025 to 067-036)				
	September 30, 2009	P7: Easement off of Riverview Ave, Heavy Clean 219' of 48" RC pipe (066-001F to 066-100)				
	September 30, 2009	P7: Easement towards the Pump Station, Heavy Clean 122' of 27" RC pipe (059-004 to 059-003)				
	September 30, 2009	P7: Easement towards the Pump Station, Heavy Clean 197' of 27" RC pipe (059-005 to 059-004)				
	September 30, 2009	P7: Easement off of Crescent Street, Heavy Clean 136' of 42" RC pipe (055-003 to 055-002)				
	September 30, 2009	P7: Easement off of Harold Street, Heavy Clean & Re-TV 304' of 27" RC pipe (048-010 to 048-009)				
	September 30, 2009	P7: Easement off of Harold Street, Heavy Clean & Re-TV 240' of 27" RC pipe (048-012 to 048-011)				
	September 30, 2009	P7: Easement off of Elliot Street, Heavy Clean 246' of 36" RC pipe (042-010B to 042-009A)				

Table 1
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Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
3rd Qua	September 30, 2009	P7: Easement off of Skyview Drive, Heavy Clean & Re-TV 258' of 36" RC pipe (034-011 to 034-010)				
	September 30, 2009	P7: Easement off West Chestnut Street, Heavy Clean & Re-TV 272' of 36" RC pipe (029-019 to 029-018)				
	September 30, 2009	P7: Easement off of Belmont Street, Heavy Clean & Re-TV 318' of 24" RC pipe (028-003A to 028-002)				
	September 30, 2009	P7: Easement thru Golf Course, Heavy Clean & Re-TV 300' of 24" RC pipe (013-066 to 013-065)				
	September 30, 2009	P7: Easement off of Geralynn Drive, T&S 287' of 24" RC pipe (067-008 to 067-007)				
	September 30, 2009	P7: Easement off of Geralynn Drive, T&S 357' of 24" RC pipe (067-004 to 067-003)				
	September 30, 2009	P7: Easement off of Hudson Street, T&S 207' of 42" RC pipe (057-046A to 057-045H)	900 gpd			
	September 30, 2009	P7: Easement off of Hudson Street, T&S 298' of 42" RC pipe (057-045H to 057-044A)	2,160 gpd			
	September 30, 2009	P7: Easement off of Summer Street towards Marion Street, T&S 305' of 42" RC pipe (055-057A to 055-048A)	4,320 gpd			
	September 30, 2009	P7: Easement near Court Street, Major Debris Removed and T&S 390' of 36" RC pipe (042-008A to 042-007B)				
	September 30, 2009	P7: Easement from Court Street towards Center Street, T&S 383' of 42" RC pipe (042-001 to 055-011A)				
	September 30, 2009	P7: Easement off of Southland Terrace, T&S 406' of 36" RC pipe (034-013 to 034-012)				
	September 30, 2009	P7: Easement off of Southland Terrace, T&S 247' of 36" RC pipe (034-014 to 034-013)				
	September 30, 2009	P7: Easement off of Southland Terrace, T&S 239' of 36" RC pipe (034-015 to 034-014)	4,320 gpd			
	September 30, 2009	P7: Easement off of Southland Terrace, T&S 198' of 36" RC pipe (034-016 to 034-015)	1,440 gpd			
	September 30, 2009	P7: Easement off of Country Club Lane, T&S 376' of 30" RC pipe (033-002 to 033-003)				
	September 30, 2009	P7: Easement off West Chestnut Street, T&S 225' of 36" RC pipe (029-016 to 029-017)	2,880 gpd			
	September 30, 2009	P7: Easement off West Chestnut Street, T&S 236' of 36" RC pipe (029-020 to 029-019)				
	September 30, 2009	P7: Easement behind the High School, T&S 302' of 30" RC pipe (028-062 to 028-026)				
	September 30, 2009	P7: Easement behind the High School, T&S 311' of 30" RC pipe (028-063 to 028-062)				
	September 30, 2009	P7: Southworth to Country Club Lane, T&S 196' of 36" RC pipe (026-007 to 026-006)				
	September 30, 2009	P7: Country Club Lane near house # 11, T&S 336' of 36" RC pipe (026-005 to 033-054)	1,440 gpd			
	September 30, 2009	P7: Easement off Pleasant Street, T&S 237' of 21" RC pipe (013-092 to 013-091)				
	September 30, 2009	P7: Easement off Pleasant Street, T&S 246' of 21" RC pipe (013-093 to 013-092)				
	September 30, 2009	P7: Easement off Pleasant Street, T&S 331' of 21" RC pipe (013-098 to 013-093)				
	September 30, 2009	P7: Easement off Pleasant Street, T&S 332' of 21" RC pipe (013-099 to 013-098)				
	September 30, 2009	P7: Easement off Pleasant Street, T&S 347' of 21" RC pipe (013-100 to 013-099)	180 gpd			
	September 30, 2009	P7: Easement off Pleasant Street, T&S 392' of 21" RC pipe (013-101 to 013-100)				
	September 30, 2009	P7: Easement off Pleasant Street, T&S 349' of 21" RC pipe (008-102 to 013-101)				
	September 30, 2009	P7: Meadowbrook, T&S 292' of 48" RC pipe (066-056 to 066-026)	3,240 gpd			
	September 30, 2009	P7: Easement off West Chestnut Street, T&S 210' of 36" RC pipe (029-004A to 029-015)	360 gpd			
	September 30, 2009	P7: Easement off Pleasant Street, T&S 223' of 21" RC pipe (013-091 to 013-090)				
	September 11, 2009	Terminal Place, replaced 4' of 8" PVC see photos 269A & 269B				
	September 2, 2009	Menlo Ave., replaced 5' of 8" PVC and service wye 1+42 to 1+47 (025-029 to 025-30) see photos 268A & 268B	0 gpd			
	September 1, 2009	Arthur Paquin Way, replaced 6' of 8" PVC 0+18 to 0+24 (005-150E to 005-150D) see photos 267A & 267B	0 gpd			
	August 24, 2009	Oakside Ave., replaced 5' of 6" PVC 0+25 to 0+30 (033-027 to 033-026) see photos 266A & 266B	540 gpd			
	August 4, 2009	Globe Rd., replaced 3' of 6" PVC 0+09 (001-083 to 001-084) see photos 265A & 265B	540 gpd			
	July 22, 2009	Globe Rd., replaced 2' of 8" PVC and service wye 2+73 to 2+75 (001-083 to 001-084) see photos 264A & 264B	1080 gpd			
	July 20, 2009	Leah Dr., replaced 2' of 8" PVC and service wye 0+05 to 0+06 (001-067 to 001-068) see photos 263A & 263B	1080 gpd			
	July 14, 2009	Brown St., replaced 6' of 6" PVC 1+94 to 2+00 (001-080 to 001-079) see photos 262A & 262B	360 gpd			
	June 30, 2009	Brown St., replaced 4' of 6" PVC 0+60 (001-080 to 001-079) see photos 261A & 261B	360 gpd		40,320 gpd	
arter 2009	May 12, 2009	Opp of 18 Prospect Avenue, replaced 13' of 8" PVC (no stationing) (SMH 006-084A to 06-084) see photos 260				x
	May 11, 2009	Prospect Avenue, replaced 4' of 8" PVC 1+20 to 1+31 (SMH 006-084A to 006-084) see photos 258 & 259				x
	May 6, 2009	38-40 Weston Street, replaced 3' of PVC 0+10 to 0+13 (SMH 006-084B to 006-084) see photos 256 & 257				x

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
2nd Qu	May 4, 2009	39 Country Club Lane, replaced 8' of 8" and 4' of 6" PVC (no stationing) (SMH 026-05 to 33-054) see photos 255				x
	April 29, 2009	54 Baxendale Terrace, replaced 8' of 8" PVC 1+60 to 1+73 (SMH 006-081 to 006-080) see photos 253 & 254				x
	April 28, 2009	50 Baxendale Terrace, replaced 9' of 8" PVC 0+06 to 0+11 (SMH 006-081 to 006-080) see photos 251 & 252				x
	April 10, 2009	22 Carrlyn Drive, replaced 4' of 8" PVC (no stationing) (SMH 002-060 to 002-059) see photos 249 & 250				x
1st Quarter 2009	March 5, 2009	Cumberland Drive, grouted the wall of the manhole (SMH 001-037) see photo 248	720 gpd			
	January 14, 2009	Winslow Avenue, water plugged and manhole table was sealed (SMH 005-141) see photo 247	720 gpd			
	January 14, 2009	Tufts Circle, water plugged and manhole wall was sealed (SMH 065-045) see photo 246	720 gpd			
	January 14, 2009	Rutland Street, water plugged and manhole table was sealed (SMH 037-106B) see photo 245A	720 gpd		2,880 gpd	
4th Quarter 2008	December 11, 2008	College Drive, water plugged pipe connections inside of manhole (32-22A)	720 gpd			
	December 11, 2008	Dewey Drive, water plugged corbel inside of manhole (32-67)	360 gpd			
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 315' of 26"x39" brick pipe (P-01 to P-02)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 230' of 12" HDPE pipe (P-02 to P-03)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 198' of 12" HDPE pipe (P-03 to P-04)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 293' of 12" HDPE pipe (P-04 to P-05)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 245' of 26"x39" brick pipe (P-05 to P-06)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 35' of 30" brick pipe (P-06 to P-07)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 263' of 30" CI pipe (P-07 to P-08)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 284' of 30" CI pipe (P-08 to P-09)				X
	November 21, 2008	Plymouth St., abandoned (and filled with flowable fill) 152' of 30" CI pipe (P-09 to BULKHEAD)				X
	November 20, 2008	Trafalgar St., replaced 3' of 8" PVC 1+80 to 1+84 (005-138 to 005-136) see photos 244A & 244B	5,310 gpd			
	November 20, 2008	Trafalgar St., replaced 3' of 8" PVC 1+98 to 2+03 (005-138 to 005-136)	5,310 gpd			
	November 18, 2008	Trafalgar St., replaced 3' of 8" PVC 2+21 to 2+26 (005-136 to 005-133) see photos 243A & 243B	497 gpd			
	November 18, 2008	Trafalgar St., replaced 3' of 8" PVC 1+68 to 1+72 (005-136 to 005-133)	497 gpd			
	November 19, 2008	Trafalgar St., replaced 4' of 8" PVC 2+14 to 2+18 (005-138 to 005-136) see photos 242A & 242B	1,620 gpd			
	November 10, 2008	Augusta St., replaced 6' of 8" PVC 1+94 to 2+00 (005-132 to 005-130) see photos 241A & 241B	30 gpd			
	November 4, 2008	Plymouth St., replaced 44.5' of 12" PVC 0+00 to 0+44.5	0 gpd			
	November 4, 2008	Plymouth St., replaced 269' of 12" PVC 0+44.5 to 3+13	0 gpd			
	November 4, 2008	Plymouth St., replaced 170' of 12" PVC 3+13 to 4+83	720 gpd			
	November 4, 2008	Plymouth St., replaced 183' of 12" PVC 4+83 to 6+66	4,507 gpd			
	November 4, 2008	Plymouth St., replaced 173' of 12" PVC 6+66 to 8+39	5,760 gpd			
	November 4, 2008	Plymouth St., replaced 193' of 12" PVC 8+39 to 10+32	0 gpd			
	November 4, 2008	Plymouth St., replaced 278' of 8" PVC 15+74 to 18+52	8,640 gpd			
	November 4, 2008	Plymouth St., replaced 139' of 8" PVC 18+52 to 19+91	0 gpd			
	November 4, 2008	Plymouth St., replaced 23' of 8" PVC 19+91 to 20+14	1,080 gpd			
	November 4, 2008	Augusta St., replaced 6' of 8" PVC 2+69 to 2+74 (005-132 to 005-130) see photos 240A & 240B	30 gpd			
	November 3, 2008	Trafalgar St., replaced 4' of 6" PVC 0+37 to 0+41 (005-136 to 005-137) see photos 239A & 239B	3,600 gpd			
	October 21, 2008	Earle St., replaced 7' of 8" PVC 0+2 to 0+09 (005-033 to 005-CAP2) see photos 238A & 238B	720 gpd		39,401 gpd	
3rd Quarter 2008	September 17, 2008	Crescent St., replaced 5' of 8" PVC 2+83 to 2+87 (054-004A to 054-004) and installed CI wrap see photos 237A to 237C				X
	September 16, 2008	Norwood St., replaced 3' of 8" PVC 2+37 to 2+40 (060-052 to 060-056) see photos 236A & 236B	400 gpd			
	September 11, 2008	Norwood St., replaced 4' of 8" PVC 1+50 to 1+54 (060-052 to 060-056) see photos 235A & 235B	400 gpd			
	September 8, 2008	Jacob St., replaced 6' of 8" PVC 0+42 to 0+48 (054-041 to 054-040) see photos 234A & 234B				X
	September 4, 2008	Jacob St., replaced 5' of 8" PVC 0+01 to 0+06 (054-041A to 054-041B)				X
	September 4, 2008	Jacob St., replaced 5' of 8" PVC 0+89 to 0+94 (054-041A to 054-041) see photos 233A & 233B				X
	September 2, 2008	Jacob St., replaced 13' of 8" PVC 2+70 to 2+83 (054-041A to 054-041) see photos 232A & 232B				X
	August 11, 2008	Myrtle St., replaced 3' of 6" PVC & performed rehabilitation on SMH 022-056 see Photos 231A & 231B			800 gpd	X

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
2nd Quarter 2008	May 6, 2008	P6: Sheridan St., replaced 131' of 12" VC pipe (053-080 to 053-084)	5,760 gpd			
	May 6, 2008	P6: Sheridan St., replaced 231' of 12" VC pipe (053-078 to 053-080)				
	May 6, 2008	P6: Sheridan St., replaced 237' of 12" VC pipe (053-054A to 053-078)				
	May 6, 2008	P6: Sheridan St., replaced 235' of 12" VC pipe (053-059 to 053-054A)				
	May 6, 2008	P6: Sheridan St., replaced 53' of 12" PVC pipe (053-065A to 053-059)				
	May 3, 2008	P6: Market St., replaced 304' of 12" VC pipe (024-046 to 024-EX2)			5,760 gpd	
1st Quarter 2008	March 26, 2008	Portland St., replaced 3' of 8" PVC & service STA 2+21 to 2+23 (059-035 to 059-034) see photos 230A & 230B	1,161 gpd			
	March 18, 2008	Portland St., replaced 3' of 8" PVC STA 2+33 to 2+36 (059-036A to 059-035) see photos 229A & 229B	1,240 gpd			
	March 18, 2008	Portland St., replaced 4' of 8" PVC & service STA 2+00 to 2+04 (059-036A to 059-035) see photos 228A & 228B	1,240 gpd			
	March 17, 2008	Portland St., replaced 3' of 8" PVC & service wye STA 0+47 to 0+49 (059-035 to 059-034) see photos 227A & 227B	360 gpd		4,001 gpd	
4th Quarter 2007	December 14, 2007	P6: Warren Ave. replaced 279' of 21" pipe (024-046 to 023-001)				
	December 14, 2007	P6: Warren Ave. replaced 284' of 21" pipe (023-005 to 023-009)				
	December 14, 2007	P6: Warren Ave. replaced 229' of 21" pipe (023-001 to 023-005)				
	December 12, 2007	P4: Packard Way, replaced 27' of 8" pipe (sta. 0+27 to 021-001)				
	December 12, 2007	P4: Packard Way, replaced 104' of 8" pipe (021-002A to sta. 0+27)				
	December 12, 2007	P4: Packard Way, replaced 294' of 8" pipe (021-002 to 021-002A)				
	October 26, 2007	P4: Warren Ave, replaced 126.5' of 12" pipe (021-054 to 021-049X)				
	October 26, 2007	P4: Warren Ave, replaced 229.5' of 12" pipe (021-049X to 022-049)				
	October 24, 2007	P6: Warren Ave, replaced 237' of 21" pipe (024-040 to 024-046)				
	Oct - Dec, 2007	Capping of 1 floor drain throughout the City		4,798 gpd		
	December 14, 2007	P6: Orchard Ave., replaced 319' of 8" pipe (037-127 to 037-128)	63,360 gpd			
	December 14, 2007	P6: North Main St., replaced 343' of 8" pipe (037-127 to 037-131)	1,080 gpd			
	December 14, 2007	P6: North Main St., replaced 295' of 8" pipe (037-124 to 037-127)	3,963 gpd			
	December 14, 2007	P6: North Main St., replaced 213' of 8" pipe (037-122A to 037-124)	4,102 gpd			
	December 14, 2007	P6: North Main St., replaced 213' of 8" pipe (037-122 to 037-122A)	2,880 gpd			
	December 14, 2007	P6: North Main St., replaced 85' of 8" pipe (037-121 to 037-122)	0 gpd			
	December 14, 2007	P6: North Main St., replaced 337' of 8" pipe (037-118 to 037-121)	2,880 gpd			
	November 20, 2007	P4: Warren Ave. replaced 262' of 12" pipe (021-006 to 021-001)	0 gpd			
	November 15, 2007	Portland St., replaced 4' of 8" PVC & service Wye STA 1+35 to 1+39 (059-036A to 059-035) see photos 226A & 226B	400 gpd			
	November 14, 2007	Lewiston St., replaced 4' of 10" PVC & service Wye STA 1+76 to 1+81 (059-045 to 059-044) see photos 225A & 225B	2,485 gpd			
	November 14, 2007	Lewiston St., replaced 4' of 10" PVC & service Wye STA 0+13 to 0+17 (059-044 to 059-040) see photos 224A & 224B	1,440 gpd			
	November 8, 2007	P4: Warren Ave, replaced 303' of 12" pipe (021-001 to 021-054)	28,800 gpd			
	October 1, 2007	Kingman St., replaced 7' of 8" PVC STA 0+30 to 0+37 (054-031 to 054-030) see photos 223A & 223B	1,750 gpd		117,938 gpd	
	September 26, 2007	P6: Warren Ave, replaced 180' of 21" pipe (024-040 to 024-044)	4,320 gpd			
	September 21, 2007	P6: Warren Ave, replaced 275' of 21" pipe (024-038 to 024-040)				
	September 14, 2007	P6: Warren Ave, replaced 274' of 21" pipe (024-037 to 024-038)				
	August 30, 2007	P6: Clifton Ave, replaced 137' of 24" pipe (024-030A to 024-037)				
	August 29, 2007	P6: Clifton Ave, replaced 116' of 24" pipe (024-030 to 024-030A)				
	August 27, 2007	P4: Warren Ave, replaced 351' of 18" pipe (022-049 to 022-040)				
	August 22, 2007	P6: Clifton Ave, replaced 32' of 24" pipe (024-029 to 024-030)				
	August 13, 2007	Clark St, replaced 8' to 8" PVC & (2)8"X8"Sleeves STA 1+20 to 1+28 (054-039 to 054-039A) see photos 222A & 222B				
	July 28, 2007	P4: Packard Way, replaced 328' of 8" pipe (021-003 to 021-002)				
	July 13, 2007	P4: Packard Way, replaced 244' of 8" pipe (021-005 to 021-004)				
	July 10, 2007	P4: Packard Way, replaced 193' of 8" pipe (021-004 to 021-003X)				
	July 3, 2007	P4: Packard Way, replaced 129' of 8" pipe (021-003X to 021-003)	180 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
3rd Quarter 2007	Jun - Sept, 2007	Removal of 22 private sump pumps and 1 floor drain capping throughout the City		94,350 gpd		
	September 17, 2007	Adams St., replaced 2' of 8" PVC & (2)8"X8"Sleeves STA 1+31 to 1+33(053-097 to 053-097A) see photos 221A & 221B	2,160 gpd			
	September 7, 2007	Moulton St., replaced 8' of 8" PVC & (3)6"Sleeves STA 1+81 to 1+89(054-035 to 054-034) see photos 220A & 220B	90 gpd			
	September 6, 2007	Perry Ave., replaced 6' of 8" PVC & (2)8"X8"Sleeves STA 2+62 to 2+68(054-035 to 054-034) see photos 219A & 219B	1,050 gpd			
	September 5, 2007	Perry Ave., replaced 7' of 8" PVC & (2)8"X8"Sleeves STA 0+58 to 0+65(054-035 to 054-034) see photos 218A & 218B	1,050 gpd			
	September 4, 2007	Perry Ave., replaced 4' of 8" PVC & (2)8"X8"Sleeves STA 0+72 to 0+76(054-035A to 054-035) see photos 217A & 217B	720 gpd			
	August 21, 2007	Addison Ave., replaced 6' of 6" PVC & 6"X6"Wye STA 1+72 to 1+78(054-004E to 054-004C) see photos 216A & 216B	360 gpd			
	August 20, 2007	Addison Ave., replaced 7' of 6" PVC & (2)6"X6"Sleeves STA 2+08 to 2+15(054-004E to 054-004C) see photos 215A & 215B	360 gpd			
	August 17, 2007	Henry St., replaced 4' of 8" PVC & (2)8"X8"Sleeves STA 1+67 to 1+71(054-025 to 054-024) see photos 214A & 214B	270 gpd			
	August 16, 2007	Henry St., replaced 6' of 8" PVC & (4)8"X8"Sleeves STA 3+07 to 3+13(054-025 to 054-024) see photos 213A & 213D	270 gpd			
	August 15, 2007	Macy Ave. replaced 8' of 8" PVC & (2)8"X8"Sleeves STA 1+22 to 1+30(054-004D to 054-004B) see photos 212A & 212B	1,500 gpd			
	July 16, 2007	Bishop St. replaced 8' of 6" PVC & 6"Sleeve STA 0+31 to 0+39(043-091A to 043-090) see photos 211A & 211B	40 gpd			
	July 12, 2007	Upton St. replaced 2' of 8" PVC & (2)8"X"Sleeves STA 1+77 to 1+79(043-056 to 043-057) see photos 210A & 210B	45 gpd			
	July 2, 2007	Moncrief St. replaced 5' of 8" PVC & 8"X8"Sleeve STA 1+10 to 1+15(043-087B to 043-087A) see photos 209A & 209B	170 gpd			
	July 2, 2007	Moncrief St. replaced 4' of 8" PVC & (2)8"X8"Sleeves STA 0+79 to 0+83(043-087B to 043-087A) see photos 208A & 208B	170 gpd			
	June 20, 2007	Drew Ave. replaced 6' of 8" PVC & (2)8"X8"Sleeves STA 0+24 to 0+30(043-087C to 043-087B) see photos 207A & 207B	1,800 gpd			
	June 19, 2007	Drew Ave. replaced 4' of 8" PVC & (2)8"X8"Sleeves STA 0+75 to 0+79(043-087D to 043-087C) see photos 206A & 206B	360 gpd			
	June 18, 2007	Drew Ave. replaced 9' of 8" PVC & (2)8"X8" Sleeves STA 1+10 to 1+19(043-087E to 043-087D) see photos 205A & 205B	450 gpd			
	June 13, 2007	Drew Ave. replaced 4' of 8" PVC & (2)8"X8" Sleeves STA 0+31 to 0+35(043-087D to 043-087C) see photos 204A & 204B	450 gpd			
	June 13, 2007	Drew Ave. replaced 4' of 8" PVC & (2)8"X8" Sleeves STA 2+61 to 2+65 (043-087D to 043-087C) see photos 203A & 203B	400 gpd			
	June 6, 2007	Drew Ave. replaced 6" service wye STA 1+36 (043-087C to 043-087B) see photos 202A & 202B	180 gpd			
	June 5, 2007	Drew Ave. replaced 2' of 8" PVC STA 1+71 to 1+73 (043-087C to 043-087B) see photos 201A & 201B	45 gpd		110,790 gpd	
2nd Quarter 2007	Apr - Jun 2007	Replacement of 6 sewer cleanouts and capping of 2 floor drains through the City		18,720 gpd		
	May 30, 2007	P4: Summer Street, replaced 160' of 8" pipe (063-013 to 063-013X)	480 gpd			
	May 30, 2007	P4: Summer Street, replaced 109' of 8" pipe (063-012X to 063-013)	480 gpd			
	May 30, 2007	P4: Summer Street, replaced 12' of 8" pipe (063-012 to 063-012X)	480 gpd			
	May 9, 2007	P4: Riverview Street, replaced 27' of 12" pipe (sta. 0+43 to 063-002A)				
	May 8, 2007	P4: Perkins Avenue, replaced 32.5' of 12" pipe (063-005D to 063-002A)				
	May 3, 2007	P4: Perkins Avenue, replaced 239' of 12" pipe (063-005D to 063-001)	65,520 gpd			
	May 1, 2007	P4: Perkins Avenue, replaced 235.5' of 10" pipe (063-001 to 066-005)	93,600 gpd			
	April 25, 2007	P4: Leyden Street, replaced 6' of 8" pipe and replaced SMH 063-CAP1	0 gpd			
	April 20, 2007	P4: Darby Road, replaced 261.5' of 8" pipe (065-028 to 065-029)	180 gpd			
	Apr - Jun 2007	Removal of 15 private sump pumps throughout the City		124,200 gpd		
	May 3, 2007	Massachusetts Ave., replaced 22' of 8" PVC STA 1+99 to 2+14 (043-016 to 043-015) see Photo 200A & 200B	500 gpd			
	May 2, 2007	Massachusetts Ave., replaced 6' of 8" PVC STA 2+96 (043-019 to 043-018) see Photo 199A & 199B	1,510 gpd			
	May 1, 2007	Massachusetts Ave., replaced 2' of 8" PVC STA 2+14 (043-019 to 043-018) see Photo 198A & 198B	1,550 gpd			
	April 30, 2007	Massachusetts Ave., replaced 5' of 8" PVC STA 2+96 (043-019 to 043-018) see Photo 197A & 197B	1,710 gpd			
	April 25, 2007	Massachusetts Ave., replaced 4' of 8" PVC STA 0+71 (043-020 to 043-019) see Photo 196A & 196B	5 gpd			
	April 24, 2007	Massachusetts Ave., replaced 8"X6" Y & 3' of 8" PVC & 5' of 6" PVC STA 0+24 (043-019 to 043-018) see Photo 195A & 195B	1,710 gpd			
	April 20, 2007	Massachusetts Ave., replaced 6"X8" TEE & 7' 8" PVC & 5' of 6" PVC STA 1+23 (043-020 to 043-019) see Photo 194A & 194B	10 gpd			
	April 19, 2007	Massachusetts Ave., replaced 4' of 8" PVC STA 1+22 (043-020 to 043-019) see Photo 193A & 193B	15 gpd			
	April 19, 2007	Massachusetts Ave., replaced 1.5' of 8" PVC STA 1+32 (043-020 to 043-019) see Photo 192A & 192B	15 gpd			
	April 10, 2007	Summer St., replaced 3' of 6" PVC NO STA (Not on Phase repair list) see Photo 191A & 191B				
	April 5, 2007	Massachusetts Ave., replaced 10' of 8" PVC STA 2+41 to 2+52 (043-016 to 043-015) see Photo 190A & 190B	480 gpd			
	April 4, 2007	Massachusetts Ave., replaced 7' of 8" PVC STA 1+99 (043-016 to 043-015) see Photo 189A & 189B	550 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
1st Quarter 2007	April 3, 2007	Massachusetts Ave., replaced 6' of 8" PVC STA 0+73 (043-016 to 043-015) see Photo 188A & 188B	45 gpd			
	April 2, 2007	Massachusetts Ave., replaced 4' of 8" PVC STA 2+23 to 2+31 (043-015 to 043-014) see Photo 187A & 187B	1,800 gpd		313,560 gpd	
	March 30, 2007	Anawan St., replaced 6' of 8" PVC STA 0+08 (043-078 to 043-077) see Photo 186A & 186B	1,080 gpd			
	March 29, 2007	Anawan St., replaced 6' of 10" PVC STA 0+76 (043-078 to 043-077) see Photo 185A & 185B	1,080 gpd			
	March 28, 2007	Ashfield Dr @Anawan St., replaced 10' of 10" PVC STA 0+33 (Not on replace list) see Photo 187A & 184B				
	March 27, 2007	Bishop St., replaced 3' of 8" PVC STA 0+11 (043-087A to 043-086A) see Photo 183A & 183B	360 gpd			
	March 27, 2007	Bishop St., replaced 3' of 8" PVC STA 1+53 (043-087A to 043-086A) see Photo 182A & 182B	360 gpd		2,880 gpd	
	March 13, 2007	Algonquin St., replaced 3' of 10" PVC STA 0+55 (043-013 to 043-012) see Photo 180A & 180B	300 gpd			
	March 12, 2007	Algonquin St., replaced 3' of 10" PVC STA 0+39 (043-013 to 043-012) see Photo 179A & 179B	180 gpd			
	March 9, 2007	Dailey Rd., replaced 2' of 8" PVC STA 0+08 (043-059 to 043-058) see Photo 178A & 178B	50 gpd			
	March 8, 2007	Algonquin St., replaced 4' of 10" PVC STA 0+15 (043-013 to 043-012) see Photo 177A & 177B	200 gpd			
	March 7, 2007	Dailey Rd., replaced 9' of 8" PVC & service wye STA 0+76 (043-059 to 043-058) see Photo 176A & 176B	50 gpd			
	March 6, 2007	Anawan St., replaced 6' of 8" PVC STA 1+13 (043-079 to 043-078) see Photo 175A & 175B	10 gpd			
	February 27, 2007	John Berman Dr., replaced cap on Y STA 1+58 (Not on replace list) see Photo 175A & 175B	700 gpd			
	February 21, 2007	John Berman Dr., replaced 4' of 10" PVC & service wye STA 0+52 (043-085A to 043-085) see Photo 174A, 174B, 174C & 174D	50 gpd			
	February 13, 2007	John Berman Dr., replaced service wye STA 1+25 (043-086 to 043-085A) see Photo 173A & 173B	50 gpd			
	February 8, 2007	John Berman Dr., replaced 6' of 10" PVC STA 0+86 (043-086 to 043-085A) see Photo 172A & 172B	20 gpd			
	February 7, 2007	Anawan St., replaced 4' of 8" PVC & service wye STA 1+82 (043-079 to 043-078) see Photo 171A & 171B	20 gpd			
	February 6, 2007	Anawan St., replaced 7' of 8" PVC STA 1+11 (043-079 to 043-078) see Photo 170A & 170B				
	February 5, 2007	Annis Ave., replaced 13' of 8" PVC & 9' of 10" PVC see Photo 169A	30 gpd			
	February 2, 2007	Anawan St., replaced 5' of 8" PVC STA 0+66 (043-079 to 043-078) see Photo 168A & 168B	25 gpd			
	February 1, 2007	Anawan St., replaced 20' of 8" PVC & service wye STA 0+33 to 0+47 (043-079A to 043-079) see Photo 167A & 167B	25 gpd			
	January 30, 2007	Anawan St., replaced 3' of 8" PVC STA 1+08 (043-079A to 043-079) see Photo 166A & 166B	2,000 gpd			
	January 29, 2007	Almon Ave., replaced 3' of 8" PVC STA 1+76 (032-072 to 032-071) see Photo 165A & 165B	2,880 gpd			
	January 5, 2007	Herrod Ave., replaced service wye STA 0+93 (037-124A to 037-124) see Photo 164A & 164B	1,080 gpd			
	January 4, 2007	N. Manchester St., service wye STA 1+10 (042-004A to 042-004B) see Photo 163A & 163B			5,620 gpd	
4th Quarter 2006	December 1, 2006	P4: Auburn Street, replaced 274.60' of 8" pipe (063-002 to 063-001A)	0 gpd			
	December 1, 2006	P4: Auburn Street, replaced 277.50' of 8" pipe (063-001A to 063-001)	0 gpd			
	November 2006	Design: East Ashland Street, replaced 130' of 12" pipe (040-019 to 040-028)	2,881 gpd			
	November 2006	Design: East Ashland Street, replaced 330' of 12" pipe (040-018 to 040-019)	36,000 gpd			
	November 2006	Design: East Ashland Street, replaced 203' of 12" pipe (040-017 to 040-018)	5,760 gpd			
	November 2006	Design: East Ashland Street, replaced 252' of 12" pipe (040-016 to 040-017)	5,040 gpd			
	October 16, 2006	P4: Burton Ave, replaced 294' of 8" pipe (060-007B to 060-007A)	6,142 gpd			
	October 16, 2006	P4: Burton Ave, replaced 166' of 8" pipe (060-007A to 060-007C)	0 gpd			
	December 18, 2006	Rutland St., replaced 3' of 6" pipe & service wye STA 2+48 (037-123 to 037-121A) see Photo 162A & 162B	672 gpd			
	December 12, 2006	Calvin Street, replaced service wye STA 0+85 (031-031 to 031-030) see Photo 161A & 161B	1,260 gpd			
	December 11, 2006	Calvin Street, replaced 6' of 8" PVC STA 0+31 (031-031 to 031-030) see Photo 160A & 160B	180 gpd			
	November 29, 2006	N. Manchester St., replaced 3' of 8" PVC & service wye STA 1+30 (042-004A to 042-004B) see Photo 159A & 159B	432 gpd			
	November 28, 2006	N. Manchester St., replaced 6' of 8" PVC & service wye STA 0+71 (042-004A to 042-004B) see Photo 158A	432 gpd			
3rd Quarter 2006	November 27, 2006	N. Manchester St., replaced 8' of 8" PVC & service wye STA 2+00 (042-004A to 042-004B) see Photo 157A & 157B	261 gpd			
	October 23, 2006	Vine Street, replaced 4' of 8" VC STA 1+46 (037-101 to 037-100) see Photo 156A & 156B	360 gpd		59,420 gpd	
	September 9, 2006	Keith Avenue, replaced 5' of 8" PVC STA 0+34 (024-039A to 024-039) see Photo 155A				
	May 9, 2006	Upland Road, replaced 3' of 8" PVC STA 0+87 (037-091 to 037-090) see Photos 154A & 154B	1,500 gpd			
	May 11, 2006	Rutland Avenue, replaced 8" pipe and service wye STA 2+33 (037-121A to 037-122) see Photos 153A & 153B	720 gpd			
2nd Quarter 2006	May 10, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 1+34 to 1+38 (037-121A to 037-122) see Photos 152A & 152B	720 gpd			

Table I
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
3rd Quarter 2006	May 18, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 2+74 (037-121A to 037-122) see Photo 151A	540 gpd			
	May 17, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 2+87 (037-121A to 037-122) see Photos 150A & 150B	540 gpd			
	May 16, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 0+15 (037-121A to 037-122) see Photos 149A & 149B	540 gpd			
	July 19, 2006	Oak Street, replaced service connection STA 2+05 (037-136 to 037-135) see Photos 148A & 148B	2,400 gpd			
	July 20, 2006	Oak Street, replaced 8" pipe service wye STA 2+85 (037-136 to 037-135) see Photos 147A & 147B	1,200 gpd			
	July 25, 2006	Oak Street, replaced 8" pipe and two service tees PVC STA 1+72 (037-135 to 037-134) see Photos 146A & 146B	2,500 gpd			
	August 3, 2006	Oak Street, replaced 8" pipe and service tee STA 0+15 (037-134 to 037-133) see Photos 145A & 145B	1,200 gpd			
	August 7, 2006	Oak Street, replaced pipe and service wyes STA 0+42 (037-134 to 037-133) see Photos 144A & 144B	1,440 gpd			
2nd Quarter 2006	August 8, 2006	Oak Street, replaced 8" pipe and service wye STA 2+08 (037-133 to 037-132) see Photos 143A & 143B	720 gpd		14,020 gpd	
	May 1, 2006	Upland Rd., repl 2' of 8" pipe and 8"X8" sleeve STA 2+45 to 2+47 (037-091 to 037-090) see Photos 142A & 142B	320 gpd			
1st Quarter 2006	April 25, 2006	Orchard Ave., replaced 6' of 8" pipe STA 0+83 to 0+87 (037-130 to 037-129) see Photos 141A & 141B	180 gpd		500 gpd	
	March 21, 2006	Pomona Dr., replaced 17.5' of 6" pipe and 6"X6" sleeve (045-032G to 045-032J) see Photos 140A & 140B				
	March 6, 2006	Main St. behind Shaws, 5' of 10" pipe STA 0+47 to 0+52 (034-12A to 034-012) see Photos 137A to 137B				
	February 28, 2006	Main St. behind Shaws, 5' of 10" pipe STA 0+21 to 0+26 (034-12A to 034-012) see Photos 136A & 136B				
	February 27, 2006	K-Mart Parking, replaced 6' of 8" pipe STA 0+36 to 0+42 (034-012K to 034-012J) see Photo 138A	1,440 gpd			
	February 7, 2006	E. Main St., replaced 5' of 8" pipe STA 2+70 to 2+74 (037-087 to 037-086) see Photos 133A & 133B				
	February 6, 2006	E. Main St., replaced 3' of 8" STA 2+25 to 2+28 (037-087 to 037-086) see Photos 132A & 132B				
	February 2, 2006	P5: Menlo Ave, lined 256.3' of 8" pipe (025-029 to 025-026)	15,750 gpd			
	February 1, 2006	P5: GERALYN Dr. Easement, lined 186' of 10" pipe (067-043 to 067-042)	1,275 gpd			
	February 1, 2006	P5: Easement across Cross Pond, lined 388' of 18" pipe (007-125 to 007-126)				
	January 31, 2006	P5: Boulders Apartments., lined 241' of 8" pipe (045-037E to 045-037D)	2,520 gpd			
	January 31, 2006	P5: Boulders Apartments., lined 150' of 8" pipe (045-037D to 045-037C)	1,440 gpd			
	January 31, 2006	P5: E. Ashland St., lined 153.5' of 15" pipe (045-033 to 045-032)	7,200 gpd			
	January 31, 2006	P5: E. Ashland St., lined 102.5' of 15" pipe (045-032 to 045-031)	2,880 gpd			
	January 30, 2006	P5: Toby Rd., lined 127.5' of 8" pipe (045-034B to 045-033A)	1,440 gpd			
	January 30, 2006	P5: Toby Rd., lined 16.2' of 8" pipe (045-034A to 045-034B)				
	January 30, 2006	P5: Toby Rd., lined 116.3' of 8" pipe (045-034C to 045-034A)				
	January 30, 2006	P5: Toby Rd., lined 192' of 8" pipe (045-036A to 045-035A)	2,160 gpd			
	January 30, 2006	P5: Toby Rd., lined 53' of 8" pipe (045-035A to 045-034C)	180 gpd			
	January 30, 2006	P5: Pleasant St., lined 399.5' of 10" pipe (017-065 to 017-062)	40,320 gpd			
	January 27, 2006	P5: Dover St., lined 451.6' of 10" pipe (018-017 to 018-016A)	6,099 gpd			
	January 27, 2006	P5: Belmont Ave, lined 77.3' of 10" pipe (017-011F to 017-041C)				
	January 26, 2006	P5: No. Warren Ave, lined 271.4' of 10" pipe (019-027 to 019-024)				
	January 26, 2006	P5: No. Warren Ave, lined 247.2' of 10" pipe (019-028 to 019-027)				
	January 26, 2006	P5: No. Warren Ave, lined 200.8' of 10" pipe (019-031 to 019-028)	360 gpd			
	January 26, 2006	P5: Warren Ave, lined 232.3' of 8" pipe (018-016 to 018-017A)	22,800 gpd			
	January 24, 2006	P5: Center St., lined 353.5' of 10" pipe (019-071 to 019-072)				
	January 24, 2006	P5: Center St., lined 145.5' of 10" pipe (019-065 to 019-071)	11,520 gpd			
	January 24, 2006	P5: Center St., lined 143' of 10" pipe (019-037B to 019-065)	720 gpd			
	January 24, 2006	P5: Forest Rd., lined 208' of 8" pipe (018-020A to 018-018A)	2,160 gpd			
	January 24, 2006	P5: Forest Rd., lined 325.6' of 8" pipe (018-018A to 018-018B)	12,960 gpd			
	January 20, 2006	P5: Edward St., lined 212.5' of 8" pipe (047-054 to 047-055)	720 gpd			
	January 20, 2006	P5: Sharon St., lined 150.3' of 8" pipe (047-054 to 047-053)	11,520 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
1st Quarter	January 20, 2006	P5: Sharon St., lined 92.2' of 8" pipe (047-053 to 047-052)				
	January 20, 2006	P5: Sharon St., lined 111.5' of 8" pipe (047-051 to 047-052)	540 gpd			
	January 19, 2006	P5: Skinner St., lined 415.5' of 8" pipe (055-047 to 055-046)				
	January 19, 2006	P5: South Fuller St., lined 276' of 10" pipe (018-016B to 018-016A)	1,275 gpd			
	January 19, 2006	Oakside Ave., replaced 4' of 8" pipe STA 0+73 to 0+77 (033-025 to 033-024) see Photos 134A & 134B				
	January 18, 2006	P5: Lyon Ave., lined 279' of 8" pipe (066-053 to 066-052)	360 gpd			
	January 18, 2006	P5: Sharon St., lined 275.3' of 8" pipe (047-051 to 047-050)	4,320 gpd			
	January 18, 2006	P5: Sharon St., lined 300' of 8" pipe (047-050 to 047-049A)				
	January 18, 2006	P5: Sharon St., lined 200.3' of 8" pipe (047-049A to 047-049)	2,880 gpd			
	January 17, 2006	P5: Main St., lined 321.5' of 8" pipe (066-044 to 066-043)	135 gpd			
	January 17, 2006	P5: Annadea Rd., lined 302.5' of 8" pipe (047-006A to 047-005B)	2,880 gpd			
	January 17, 2006	P5: Annadea Rd., lined 115.5' of 8" pipe (047-005B to 047-004A)				
	January 16, 2006	P5: Skinner St., lined 148.3' of 8" pipe (055-048 to 055-049)	10,975 gpd			
	January 16, 2006	P5: Skinner St., lined 75.5' of 8" pipe (055-048 to 055-046)	410 gpd			
	January 13, 2006	P5: Maplewood Cir., lined 230.9' of 8" pipe (045-021 to 045-022)	1,440 gpd			
	January 13, 2006	P5: Maplewood Cir., lined 247.5' of 8" pipe (045-021 to 045-020)	2,880 gpd			
	January 13, 2006	P5: Joslyn Ln, lined 113.5' of 8" pipe (019-073 to 019-074)	90 gpd			
	January 13, 2006	P5: Joslyn Ln, lined 113.5' of 8" pipe (019-072 to 019-073)	90 gpd			
	January 12, 2006	P5: Cristo's Way, lined 370.9' of 8" pipe (048-051 to 048-050)	11,620 gpd			
	January 12, 2006	P5: Cristo's Way, lined 300.5' of 8" pipe (048-050 to 048-042)	764 gpd			
	January 12, 2006	P5: Woodland Ave, lined 391' of 8" pipe (035-107 to 035-106)	2,760 gpd			
	January 12, 2006	P5: Woodland Ave, lined 263' of 8" pipe (035-109 to 035-107)	69,120 gpd			
	January 12, 2006	Oakside Ave., replaced 5' of 8" pipe STA 1+45 to 1+50 (033-026 to 033-025) see Photos 135A & 135B				
	January 11, 2006	P5: Maplewood Cir., lined 276' of 8" pipe (045-020 to 045-019A)	1,440 gpd			
	January 11, 2006	P5: Maplewood Cir., lined 197' of 8" pipe (045-019 to 045-019A)	1,080 gpd			
	January 11, 2006	P5: Maplewood Cir., lined 201.5' of 8" pipe (045-017 to 045-019)	2,880 gpd			
	January 11, 2006	P5: Camden Ave, lined 198.5' of 8" pipe (020-060C to 020-060B)	12,960 gpd			
	January 11, 2006	P5: Camden Ave, lined 296.5' of 8" pipe (020-060B to 020-060A)	2,160 gpd			
	January 10, 2006	P5: Quincy St., lined 251' of 8" pipe (048-053 to 048-054)	410 gpd			
	January 10, 2006	P5: Beaumont Ave, lined 101' of 8" pipe (048-052 to 048-053)	107 gpd			
	January 10, 2006	P5: Beaumont Ave, lined 149' of 8" pipe (048-051 to 048-052)	107 gpd			
	January 10, 2006	P5: Hampton Ave, lined 417' of 8" pipe (035-108 to 035-107)	177 gpd			
	January 9, 2006	P5: Plain St., lined 286.7' of 8" pipe (066-090 to 066-089A)	5,000 gpd			
	January 4, 2006	Jane Ter., replaced 3' of 6" pipe STA 1+57 to 1+60 (033-022 to 033-021) see Photos 139A & 139B	1,440 gpd		285,764 gpd	
	Oct - Nov 2005	P5: Rehabilitation of 117 manholes	94,608 gpd			
	December 22, 2005	P5: Main Street, lined 277' of 8" pipe (066-042 to 066-041)				
	December 22, 2005	P5: Main Street, lined 248.5' of 8" pipe (066-043 to 066-042)	11,520 gpd			
	December 21, 2005	P5: Quincy Street, lined 273.7' of 8" pipe (048-056 to 048-055)	3,610 gpd			
	December 21, 2005	P5: Quincy Street, lined 279.2' of 8" pipe (048-055 to 048-053)	4,350 gpd			
	December 20, 2005	P5: Manomet Street, lined 277.45' of 8" pipe (020-053 to 020-054)	2,520 gpd			
	December 19, 2005	P5: Theresa Road, lined 232.1' of 8" pipe (067-065 to 067-066)	117 gpd			
	December 15, 2005	P5: Ash Street, lined 206.2' of 8" pipe (017-026 to 017-024)	1,620 gpd			
	December 15, 2005	P5: Ellsworth Street, lined 235.8' of 8" pipe (017-024 to 017-022)	4,320 gpd			
	December 14, 2005	P5: Spring Street, lined 210.6' of 8" pipe (017-043 to 017-053)	13,680 gpd			
	December 14, 2005	P5: Highland Terrace, lined 228.6' of 8" pipe (017-050 to 017-043)	7,560 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
4th Quarter 2005	December 13, 2005	P5: No. Quincy Street, lined 34' of 8" pipe (049-105 to 049-105A)	102 gpd			
	December 13, 2005	P5: No. Quincy Street, lined 314' of 8" pipe (049-106 to 049-105)	4,500 gpd			
	December 13, 2005	P5: No. Quincy Street, lined 285' of 8" pipe (049-108 to 049-106)	7,200 gpd			
	December 12, 2005	P5: Moraine Street, lined 335.05' of 8" pipe (017-066 to 017-065)	2,160 gpd			
	December 7, 2005	P5: Main Street, lined 327' of 8" pipe (066-045 to 066-044)	2,700 gpd			
	December 7, 2005	P5: Main Street, lined 304.7' of 8" pipe (066-049 to 066-045)				
	December 7, 2005	P5: Main Street, lined 203.4' of 8" pipe (066-052 to 066-049)	3,600 gpd			
	December 5, 2005	P5: Brunswick Street, lined 268.4' of 8" pipe (117-097 to 117-100)	1,440 gpd			
	December 1, 2005	P5: Summer Street, lined 139.65' of 8" pipe (066-083 to 066-079)	5,760 gpd			
	December 1, 2005	P5: Summer Street, lined 54.3' of 8" pipe (066-083 to 066-084)				
	December 1, 2005	P5: Summer Street, lined 174.45' of 8" pipe (066-084 to 066-085)	1,080 gpd			
	December 1, 2005	P5: Summer Street, lined 215.2' of 8" pipe (066-085 to 066-086)				
	November 30, 2005	P5: Pleasant Street, lined 152' of 8" pipe (017-162 to 017-160B)	1,080 gpd			
	November 30, 2005	P5: Pleasant Street, lined 308.3' of 8" pipe (017-160B to 017-160A)	8,460 gpd			
	November 30, 2005	P5: Pleasant Street, lined 307.7' of 8" pipe (017-160A to 017-160)				
	November 29, 2005	P5: Prospect Avenue, lined 308.05' of 8" pipe (017-114 to 017-113)	4,320 gpd			
	November 28, 2005	P5: Cross Country (off E. Ashland), lined 195.3' of 15" pipe (045-034 to 045-035)	1,382 gpd			
	November 28, 2005	P5: Cross Country (off E. Ashland), lined 207.4' of 15" pipe (045-033 to 045-034)	1,473 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 70.15' of 8" pipe (049-102 to 049-102A)	107 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 275.45' of 8" pipe (049-103 to 049-102)	4,380 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 287.2' of 8" pipe (049-104 to 049-103)	7,250 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 326.1' of 8" pipe (049-105A to 049-104)	7,250 gpd			
	November 18, 2005	P5: E. Ashland Street, lined 21' of 12" pipe (040-015 to 040-016)	8,640 gpd			
	November 18, 2005	P5: E. Ashland Street, lined 152' of 12" pipe (040-003B to 040-015)	6,480 gpd			
	November 17, 2005	P5: Easement (between Manomet & Grafton), lined 129.3' of 8" pipe (020-048 to 020-043)	1,800 gpd			
	November 17, 2005	P5: Easement (between Manomet & Grafton), lined 250.7' of 8" pipe (020-049 to 020-048)	1,800 gpd			
	November 16, 2005	P5: No. Quincy Street, lined 295.8' of 8" pipe (045-072 to 045-074)				
	November 16, 2005	P5: No. Quincy Street, lined 301.6' of 8" pipe (045-075 to 045-074)				
	November 16, 2005	P5: No. Quincy Street, lined 239.6' of 8" pipe (045-075 to 045-076)				
	November 15, 2005	P5: Georgene Drive, lined 208.7' of 8" pipe (067-067A to 067-067)	764 gpd			
	November 15, 2005	P5: Georgene Drive, lined 210.35' of 8" pipe (067-069 to 067-067A)	8,095 gpd			
	November 14, 2005	P5: Clinton Street, lined 286.9' of 8" pipe (018-010A to 018-010)	5,760 gpd			
	November 10, 2005	P5: Cross Country, lined 161.45' of 12" pipe (045-017 to 045-016)	6,808 gpd			
	November 10, 2005	P5: Cross Country, lined 155.9' of 12" pipe (045-016 to 045-015)	6,643 gpd			
	November 10, 2005	P5: Cross Country, lined 245.1' of 12" pipe (045-015 to 045-014)	10,356 gpd			
	November 10, 2005	P5: Cross Country, lined 236.85' of 12" pipe (045-014 to 045-013)	10,068 gpd			
	November 10, 2005	P5: Cross Country, lined 224.9' of 12" pipe (045-013 to 045-012A)	9,325 gpd			
	November 10, 2005	P3: High Street, replaced 173.9' of 8" pipe (019-091 to 019-088A)	360 gpd			
	November 9, 2005	Hatchfield Dr, replaced 2' of 8" pipe STA 1+01 to 1+03 (032-055C to 032-055B) see Photo 131A & 131B	1,440 gpd			
	November 9, 2005	P5: Twelfth Avenue, lined 298.7' of 8" pipe (067-033 to 067-031)	6,873 gpd			
	November 9, 2005	P5: Twelfth Avenue, lined 297' of 8" pipe (067-034 to 067-033)	6,873 gpd			
	November 9, 2005	P5: Twelfth Avenue, lined 191.3' of 8" pipe (067-035 to 067-034)	3,254 gpd			
	November 8, 2005	P5: Carleton Street, lined 407.1' of 8" pipe (017-127 to 017-088)				
	November 7, 2005	P5: Plain Street, lined 349.1' of 8" pipe (067-065 to 067-067)	764 gpd			
	November 4, 2005	P5: Augusta Avenue, lined 270.8' of 8" pipe (017-110 to 017-074)	2,160 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
	November 2, 2005	P5: Hamilton Street, lined 273.7' of 8" pipe (117-097 to 117-099)	2,940 gpd			
	November 2, 2005	P5: Hamilton Street, lined 275.8' of 8" pipe (117-098 to 117-099)	1,440 gpd			
	November 2, 2005	P5: Boulders Apartments, lined 304.9' of 8" pipe (045-037E to 045-037G)	4,583 gpd			
	November 2, 2005	P5: No. Quincy Street, lined 292.4' of 8" pipe (049-109 to 049-108)	5,050 gpd			
	November 2, 2005	P5: No. Quincy Street, lined 337.1' of 8" pipe (049-109 to 049-110)				
	November 2, 2005	P5: Bedford Street, lined 347.65' of 8" pipe (045-047 to 045-048)				
	November 2, 2005	P5: Bedford Street, lined 158.8' of 8" pipe (045-047 to 045-046)				
	November 2, 2005	P5: Manomet Street, lined 149.85' of 8" pipe (020-061 to 020-060)	3,960 gpd			
	November 2, 2005	P5: Manomet Street, lined 136.1' of 8" pipe (020-066 to 020-065)	180 gpd			
	November 2, 2005	P5: Manomet Street, lined 267.1' of 8" pipe (020-065 to 020-061)	315 gpd			
	November 2, 2005	P5: Anania Terrace, lined 388.4' of 8" pipe (020-067 to 020-065)	14,400 gpd			
	November 2, 2005	P5: Loucraft Avenue, lined 310.4' of 8" pipe (019-043 to 019-042)				
	November 2, 2005	P5: Maplewood Cir., lined 242.8' of 10" pipe (045-031A to 045-033B)	21,600 gpd			
	November 2, 2005	P5: Maplewood Cir., lined 152.1' of 10" pipe (045-031A to 045-030A)	4,320 gpd			
	November 2, 2005	P5: Maplewood Cir., lined 90' of 10" pipe (045-029A to 045-030A)	1,440 gpd			
	November 2, 2005	P5: Maplewood Cir., lined 308.3' of 10" pipe (045-029A to 045-028)	5,040 gpd			
	October 19, 2005	P5: Pomona Drive, lined 279.5' of pipe (045-032A to 045-032B)				
	October 19, 2005	P5: Pomona Drive, lined 105.4' of pipe (045-032A to 045-032G)	2,800 gpd			
	October 19, 2005	P5: Pomona Drive, lined 213.5' of pipe (045-032H to 045-032G)	360 gpd			
	October 19, 2005	P5: Pomona Drive, lined 118.6' of pipe (045-032H to 045-032I)	720 gpd			
	October 19, 2005	P5: Pomona Drive, lined 47.3' of pipe (045-032C to 045-032B)				
	October 19, 2005	P5: Oberline Road, lined 319.6' of pipe (045-032B to 045-032D)				
	October 19, 2005	P5: Annadea Road, lined 297.9' of 8" pipe (047-007A to 047-006A)	3,600 gpd			
	October 19, 2005	P5: Annadea Road, lined 227.9' of 8" pipe (047-007A to 047-008A)	1,080 gpd			
	October 19, 2005	P5: Annadea Road, lined 221.3' of 8" pipe (047-009A to 047-008A)	1,448 gpd			
	October 19, 2005	P5: Court Street, lined 422.65' of 8" pipe (047-061 to 047-063)	4,320 gpd			
	October 19, 2005	P5: Court Street, lined 245.3' of 8" pipe (047-061 to 047-020)	1,080 gpd			
	October 17, 2005	P5: Charline Drive, lined 57.15' of 8" pipe (047-062 to 047-062A)				
	October 17, 2005	P5: Charline Drive, lined 336.6' of 8" pipe (047-061 to 047-062)	2,700 gpd			
	October 13, 2005	P5: Pomona Drive, lined 243.3' of pipe (045-032 to 045-032A)	3,600 gpd			
	October 12, 2005	P5: Bark Circle, lined 238' of 8" pipe (045-083 to 045-084)				
	October 12, 2005	P5: Bark Circle, lined 205.4' of 8" pipe (045-083 to 045-082)				
	October 11, 2005	P3: Lincoln Street, replaced 205.2' of 10" pipe (019-103A to 019-103B)	2,160 gpd			
	October 11, 2005	P3: Lincoln Street, replaced 126.3' of 10" pipe (019-103B to 019-103C)				
	October 11, 2005	P3: Lincoln Street, replaced 59.9' of 10" pipe (019-103C to 019-103D)				
	October 11, 2005	P3: Lincoln Street, replaced 94.1' of 10" pipe (019-103D to 019-103E)				
	October 11, 2005	P3: Lincoln Street, replaced 134.1' of 10" pipe (019-103E to 019-103F)				
	October 11, 2005	P3: School St, replaced 294' of 10" pipe (019-088 to 019-103B)	720 gpd		396,268 gpd	
	Sept. 27 - 28, 2005	P5: Rehabilitation of 7 manholes	5,760 gpd			
	September 23, 2005	Van Cliff, replaced 8" pipe STA 3+00 to 3+05 (032-053 to 032-052) see Photos 127A & 127B				
	September 21, 2005	Marie Ave., replaced 8" pipe STA 2+70 to 2+89 (050-065 to 050-065B) see Photos 129A & 129B	2,880 gpd			
	September 21, 2005	Marie Ave., replaced 6' of 8" pipe STA 2+20 to 2+26 (050-066 to 050-067) see Photo 130A & 130B	1,440 gpd			
	September 20, 2005	Budd Ave., replaced 8" pipe STA 1+50 to 1+55 (053-062 to 053-063) see Photos 128A & 128B	7,200 gpd			
	September 16, 2005	P3: Green St., replaced 275' of 6" pipe (019-025 to 019-024)	1,440 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
3rd Quarter 2005	September 12, 2005	Van Cliff, replaced 8" pipe STA 1+65 to 1+69 (032-053 to 032-052) see Photos 126A & 126B				
	September 6, 2005	P3: N. Warren Ave., replaced 365' of 8" pipe (019-042 to 019-040)				
	September 6, 2005	P3: N. Warren Ave., replaced 157' of 8" pipe (019-044 to 019-042)	6,840 gpd			
	August 31, 2005	P2: Bartlett St., replaced 19.5' of 30" pipe (018-051B to 018-051)				
	August 31, 2005	P2: Chester Ave., replaced 18' of 18" pipe (018-051A to 018-051)				
	August 31, 2005	P2: Chester Ave., replaced 19.5' of 18" pipe (018-051B to 018-056)				
	August 31, 2005	P2: Chester Ave., replaced 89.5' of 18" pipe (018-056 to 018-056B)				
	August 25, 2005	West St., replaced 4' of 10" sewer pipe STA 1+29 to 1+33 (014-077 to 014-078)	1,440 gpd			
	August 23, 2005	P3: Roan Crt., replaced 286' of 8" pipe (019-041 to 019-040)				
	August 19, 2005	Roan Court, removed water & sewer service cross connection @ abandoned lot (019-040 to 019-041)	21,600 gpd			
	August 11, 2005	Rockland St., replaced service wye at STA 1+70 (031-088 to 031-093) see Photos 122A & 122B				
	August 10, 2005	Rockland St., replaced wye & pipe STA 0+84 - 0+89 (031-087 to 031-086) see Photos 123A & 123B				
	August 10, 2005	Windsor Cir., replaced 8" pipe STA 1+55 to 1+60 (031-090 to 031-089) see Photos 124A & 124B	5,760 gpd			
	August 8, 2005	Rockland St., replaced 8" pipe STA 0+00 to 0+05 (031-088 to 031-093) see Photos 121A & 121B				
	August 8, 2005	Chester Ave., replaced sewer manhole with underdrain connection (018-056) see Photos 119A	14,400 gpd			
	August 5, 2005	Adams St., replaced 8' of 8" pipe (053-097 to 053-096) see Photo 120A and 120B	7,200 gpd			
	August 5, 2005	P3: Plain St., replaced 210.6' of 10" pipe (066-082A to 066-082)				
	August 5, 2005	P3: Plain St., replaced 320.1' of 15" pipe (066-078 to 066-079)				
	August 5, 2005	P3: Plain St., replaced 265' of 15" pipe (066-080 to 066-079)				
	August 5, 2005	P3: Plain St., replaced 229' of 15" pipe (066-080 to 066-081)				
	August 5, 2005	P3: Plain St., replaced 254' of 15" pipe (066-081 to 066-082)				
2nd Quarter 2005	July 19, 2005	Calvin St., replaced service wye at STA 0+30 (031-031 to 031-030) see Photos 125A & 125B				
	July 15, 2005	Calvin St., replaced 4' of 8" pipe STA 1+54 to 1+58 (031-031 to 031-030)	2,880 gpd		78,840 gpd	
	June 17, 2005	P3: Otis St., replaced 223' of 8" pipe (055-043 to 055-042B)	410 gpd			
	May 30, 2005	Forest Ave., replaced pipe (021-032 to 021-031) see Photos 116A & 116B				
	May 17, 2005	Carrol Ave., replaced service wye STA 1+06 (025-021B to 025-021A) see Photos 115A & 115B	720 gpd			
	May 16, 2005	P3: Appleby St., replaced 283' of 10" pipe (067-015 to 067-028)	760 gpd			
	May 12, 2005	P3: Armistion St., replaced 334' of 10" pipe (045-060 to 045-059)	8,640 gpd			
	May 12, 2005	P3: Armistion St., replaced 336' of 10" pipe (045-061 to 045-060)	4,320 gpd			
	May 11, 2005	P3: Twelfth Ave., replaced 300' of 8" pipe (067-031 to 067-028)	570 gpd			
	May 11, 2005	Carrol Ave., replaced service wye STA 0+59 (025-021B to 025-021A) see Photos 118A & 118B	1,440 gpd			
	May 10, 2005	Carrol Ave., replaced pipe STA 1+42 to 1+47 (025-021A to 025-021C) see Photos 117A & 117B				
	May 6, 2005	P3: Twelfth Ave., replaced 225' of 10" pipe (067-028 to 067-027)	8,990 gpd			
	April 28, 2005	P3: Armistion St., replaced 300' of 8" pipe (045-062 to 045-061)				
	April 28, 2005	P3: Armistion St., replaced 238' of 8" pipe (045-063 to 045-062)	720 gpd			
	April 15, 2005	P3: Pratt St., replaced 207' of 10" pipe (045-064 to 045-065)	36,000 gpd			
	April 12, 2005	P3: Armistion St., replaced 340' of 10" pipe (045-058 to 045-059)	8,640 gpd			
	April 12, 2005	P3: Allerton St., replaced 269' of 10" pipe (045-064 to 045-061)	30,240 gpd		101,450 gpd	
1st Quarter 2005	March 26, 2005	Woodard Ave. replaced 4' of 12" pipe from STA 2+21 to 2+25 (025-103 to 025-102)	1,440 gpd			
	March 8, 2005	Woodard Ave. replaced service wye STA 0+87 (025-003 to 025-002) see Photos 114A & 114B	1,440 gpd			
	February 16, 2005	Vesey St., replaced pipe from STA 0+89 to 0+97 (023-028 to 023-027) see Photos 113A & 113B				

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
1st Qua	February 14, 2005	Vesey St., replaced service wye at STA 2+11 (023-029 to 023-028) see Photos 112A & 112B				
	January 11, 2005	Hillberg Ave., replaced pipe from STA 0+35 to 0+51 (023-042 to 023-041) see Photos 111A & 111B	1,440 gpd			
	January 11, 2005	Hillberg Ave., replaced pipe from STA 0+78 to 0+94 (023-040A to 023-040) see Photos 107A & 107B	438 gpd		4,758 gpd	
4th Quarter 2004	December 21, 2004	Hillberg Ave., replaced pipe from STA 0+97 to 1+01 (023-044 to 023-043) see Photos 108A & 108B	1,440 gpd			
	December 14, 2004	P2: Silver Rd., replaced 685' of 10" pipe (017-059 to 017-061)	15,840 gpd			
	December 14, 2004	Tremont St., replaced wye & pipe from STA 2+30 to 2+36 (023-016 to 023-014) see Photos 109A & 109B	1,440 gpd			
	Dec. 13-30, 2004	Whitman Interceptor lining, Southfield Dr., East St. to Edison Easement (1,570 ft)	20,000 gpd			
	December 13, 2004	French Ave., replaced pipe from STA 1+15 to 1+25 (023-027 to 023-025) see Photos 110A & 110B	2,160 gpd			
	December 3, 2004	P3: Annadea Rd., replaced 253' of 8" pipe (047-003A to 047-002A)	2,160 gpd			
	December 3, 2004	P3: Edward St., replaced 295' of 8" pipe (047-042 to 047-043)	8,640 gpd			
	December 3, 2004	P3: Edward St., replaced 207' of 8" pipe (047-042 to 047-041)	2,160 gpd			
	December 3, 2004	P3: Crane Rd., replaced 301' of 8" pipe (047-15A to 047-14A)	2,160 gpd			
	December 3, 2004	P3: Crane Rd., replaced 297' of 8" pipe (047-016A to 047-015A)	4,140 gpd			
	December 3, 2004	P3: Crane Rd., replaced 197' of 8" pipe (047-017A to 047-016A)	360 gpd			
	December 2, 2004	P3: Twin Oaks, replaced 225' of 8" pipe (047-009A to 047-010B)	4,320 gpd			
	December 2, 2004	P3: Twin Oaks, replaced 300' of 8" pipe (047-011A to 047-009A)	17,285 gpd			
	December 2, 2004	P3: Twin Oaks, replaced 250' of 8" pipe (047-011A to 047-012A)	5,760 gpd			
	December 2, 2004	French Ave., replaced pipe from STA 0+45 to 0+47 (023-027 to 023-025) see Photos 105A & 105B	1,440 gpd			
	November 29, 2004	P2: Belmont Ave., replaced 89' of 8" and 10" pipe (017-011F to 017-011F1)				
	November 22, 2004	P2: Augusta Ave., replaced 763' of 8" and 6" pipe (017-110 to 017-115)	3,060 gpd			
	November 16, 2004	P2: Greenfield St., replaced 456' of 8" and 6" pipe (017-110 to 017-111)	360 gpd			
	November 8, 2004	P2: Spring St., replaced 292' of 8" pipe (017-036 to 017-037)	7,020 gpd			
	November 2, 2004	French Ave., replaced pipe from STA 0+16 to 0+18 (023-027 to 023-025) see Photos 106A & 106B	4,102 gpd			
	November 2, 2004	P2: Poplar Rd., replaced 654' of 8" pipe (017-053 to 017-CAP6)	13,680 gpd			
	October 26, 2004	P2: Brook St. replaced 1,097' of 8" and 10" pipe (018-012A to 018-030)	5,220 gpd			
	October 25, 2004	P2: Green St., replaced 508' of 8" and 10" pipe (017-034 to 017-035)	11,430 gpd			
	October 14, 2004	Myrtle St. replaced pipe STA 0+14 to 0+18 (022-036 to 022-035) see Photos 94A	4,320 gpd			
	October 12, 2004	P2: Newbury St., replaced 528' of 8" and 6" pipe (017-128 to 017-131)	7,200 gpd			
	October 4, 2004	School St. replaced pipe from STA 0+05 to 0+09 (019-103B to 019-103A) see Photos 95A & 95B	2,160 gpd		147,857 gpd	
3rd Quarter 2004	September 30, 2004	Lincoln St. capped service STA 2+03 (019-103A to 019-103) see Photos 97A & 97B				
	September 30, 2004	Lincoln St. replaced pipe from STA 0+80 to 0+85 (019-103A to 019-103) see Photos 96A & 96B	1,440 gpd			
	September 30, 2004	P2: Ash St., replaced 299' of 8" pipe (017-038 to 017-039)	360 gpd			
	September 24, 2004	Center St. replaced pipe STA 0+82 to 0+94 (019-065 to 019-037B) see Photos 99A & 99B	650 gpd			
	September 24, 2004	Center St. replaced service wye STA 1+08 (019-073 to 019-074) see Photos 98A	1,440 gpd			
	September 22, 2004	P2: Boylston St. replaced 561' of 8" pipe (020-054 to 020-056)	4,320 gpd			
	September 20, 2004	High St. replaced pipe from STA 1+15 to 1+21 (019-091 to 019-088A) see Photos 100A & 100B	1,440 gpd			
	September 15, 2004	P2: Camden Ave., replaced 292' of 8" pipe (020-060 to 020-060A)				
	September 14, 2004	Legion PKW, replaced pipe from STA 0+46 to 0+64 (019-076 to 019-090) see Photos 101A & 101B	4,320 gpd			
	September 8, 2004	Legion PKW, replaced pipe from STA 0+96 to 0+98 (019-079 to 019-076) see Photos 102A & 102B	1,440 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
2nd Qua rter 2004	September 8, 2004	P2: Forest Rd. replaced 218' of 8" pipe (018-20A to 018-021A)	720 gpd			
	September 7, 2004	Center St, replaced service wye STA 0+19 (019-073 to 019-072) see Photos 103A & 103B				
	September 2, 2004	Packard WY, replaced pipe STA 3+01 to 3+10 (021-004 to 021-003) see Photos 104A	2,880 gpd		19,010 gpd	
					0 gpd	
1st Qua rter 2004					0 gpd	
4th Quarte r 2003	Sept 26 - Dec 31, 2003	Abington removal of 8 sump pumps		172,800	172,800 gpd	
3rd Quarter 2003	July 2003	P1: 002-079 MH rehab	2,880 gpd			
	July 2003	P1: 002-081 MH rehab	2,880 gpd			
	July 2003	P1: 002-098 MH rehab	4,320 gpd			
	July 2003	P1: 002-201 MH rehab	2,880 gpd			
	July 2003	P1: 002-200A MH rehab	2,880 gpd			
	August 2003	P1: 004-006 MH rehab	5,760 gpd			
	July 2003	P1: 009-017A MH rehab	7,200 gpd			
	July 2003	P1: 011-001 MH rehab	5,760 gpd			
	July 2003	P1: 011-002 MH rehab	4,320 gpd			
	July 2003	P1: 011-018 MH rehab	2,880 gpd			
	August 2003	P1: 012-067 MH rehab	2,160 gpd			
	July 2003	P1: 012-076 MH rehab	2,880 gpd			
	July 2003	P1: 017-125 MH rehab	4,320 gpd			
	August 2003	P1: 017-054 MH rehab	7,200 gpd			
	July 2003	P1: 021-001 MH rehab	28,800 gpd			
	August 2003	P1: 025-041A MH rehab	4,320 gpd			
	July 2003	P1: 027-068 MH rehab	2,160 gpd			
	July 2003	P1: 031-016 MH rehab	2,880 gpd			
	July 2003	P1: 031-089 MH rehab	7,200 gpd			
	July 2003	P1: 031-050A MH rehab	7,200 gpd			
	July 2003	P1: 032-019 MH rehab	4,320 gpd			
	August 2003	P1: 033-021 MH rehab	2,880 gpd			
	August 2003	P1: 041-079 MH rehab	7,200 gpd			
	July 2003	P1: 045-033 MH rehab	7,200 gpd			
	August 2003	P1: 045-065 MH rehab	7,200 gpd			
	July 2003	P1: 046-113A MH rehab	2,160 gpd			
	July 2003	P1: 047-029 MH rehab	4,320 gpd			
	July 2003	P1: 048-057D MH rehab	3,600 gpd			
	July 2003	P1: 049-091 MH rehab	2,160 gpd			
	August 2003	P1: 052-010 MH rehab	3,600 gpd			
	July 2003	P1: 061-011 MH rehab	5,040 gpd			
	July 2003	P1: 065-021 MH rehab	7,200 gpd			
	July 2003	P1: 065-028 MH rehab	31,680 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
	August 2003	P1: 065-008A MH rehab	2,160 gpd			
	August 2003	P1: 117-088A MH rehab	4,320 gpd			
	August 2003	P1: Pleasant Street 008-010 towards 008-011 65' 8"	5,900 gpd			
	August 2003	P1: Rockland Street 008-013 to 008-012 306' 8"	25,000 gpd			
	July 2003	P1: Belair Street 004-040 to 004-023 116' 15"	3,600 gpd			
	July 2003	P1: Belair Street 004-023 to 004-020, 248' 15"	15,120 gpd			
	July 2003	P1: Belair Street 004-020 to 004-016, 320' 15"	16,560 gpd			
2nd Quarter 2003	July - Sept. 2003	Abington removal of 21 sump pumps		440,000 gpd	712,100 gpd	
	May 2003	P1: Belair Street 004-045 to 004-044 280' 15"	0 gpd			
	May 2003	P1: Belair Street 004-044 to 004-042 250' 15"	0 gpd			
	April 2003	P1: Belair Street 004-042 to 004-041 220' 15"	1,275 gpd			
	April 2003	P1: Belair Street 004-041 to 004-040 364' 15" & 18"	2,880 gpd			
	June 2003	P1: North Cary Steet 040-031 to 040-029 164' 12"	11,520 gpd			
	June 2003	P1: North Cary Steet 040-029 to 040-028 353' 12"	112,320 gpd			
1st Quarter 2003	April 8, 2003	P1: Belair Street 004-016 to 017-012A, 415' 15"	14,400 gpd		142,395 gpd	
	March 20, 2003	P1: Belair Street 017-012A to 017-011A 55' 15"	0 gpd			
	March 10, 2003	P1: Westgate Drive 007-127F to 007-127Q 196' 12"	34,560 gpd			
	February 26, 2003	P1: Easement off E. Westgate Dr. 007-127D to 007-127C 326' 12"	30,560 gpd			
	February 15, 2003	P1: Easement off E. Westgate Dr. 007-127C to 007-127B 251' 12"	57,500 gpd			
4th Quarter 2002	February 10, 2003	P1: Easement off E. Westgate Dr. 007-127B to 007-127 335' 12"	410 gpd		123,030 gpd	
	December-02	P1: Belair Street 017-011A to 017-010B 174' 15"	26,640 gpd			
	December-02	P1: Belair Street 017-010B to 017-011B 98' 15"	11,520 gpd			
	November-02	P1: Belair Street 017-011B to 017-010A 146' 15"	0 gpd			
	November-02	P1: Belair Street 017-010A to 017-009A, 235' 15"	2,160 gpd			
	November-02	P1: Belair Street 017-009A to 017-001B 209' 15"	0 gpd			
	Oct - Dec 2002	Removal of 138 private sump pumps throughout the city		3,008,000 gpd		
3rd Quarter 2002	October 3, 2002	Legion PKW. disconnected private catch basin. STA 0+48 (019-077 to 019-076) see Photo 93A & 93B		107,000 gpd	3,155,320 gpd	
	August 20, 2002	Removed catch basin grate on sewer manhole at end of Thatcher Crt. (MH 058-022)	100,000 gpd			
	July 30, 2002	Ash St., replaced pipe and service from STA 1+22 to 1+56 (017-039 to 017-038) see Photo 92B	4,320 gpd			
	July 29, 2002	S. Fuller St., replaced pipe from STA 0+27 to 0+33 (018-016B to 018-016A) see Photo 90A & 90B	SPL			
	July 27, 2002	Dover St., replaced service wye at STA 2+24 (018-017 to 018-016A) see Photo 87A & 87B	360 gpd			
	July 25, 2002	Dover St., replaced service wye at STA 2+40 (018-017 to 018-016A) see Photo 88A	1,440 gpd			
	July 24, 2002	Forest Rd., replaced pipe from STA 0+17 to 0+23 (018-021A to 018-020A) see Photo 91A & 91B	SPL			
1st Quarter 2002	July 23, 2002	Dover St., removed service wye at STA 1+18 (018-018B to 018-019C) see Photo 89A & 89B	SPL		106,120 gpd	
	May 28, 2002	Spring St., replaced pipe from STA 1+73 to 1+75 (017-038 to 017-037) see Photo 78A & 78B	SPL			
	May 21, 2002	Spring St., replaced service wye at STA 1+82 (017-037 to 017-036) see Photo 76A & 76B	4,320 gpd			
	May 20, 2002	Poplar Rd., replaced service wye at STA 0+60 (017-054 to 017-053) see Photo 77A & 77B	2,880 gpd			
	May 17, 2002	Poplar Rd., replaced service wye at STA 0+84 (017-055 to 017-054) see Photo 75A & 75B	720 gpd			
	May 13, 2002	Poplar Rd., replaced service wye at STA 1+22 (017-055 to 017-054) see Photo 85A & 85B	1,440 gpd			
	May 9, 2002	Augusta Ave., replaced pipe from STA 1+08 to 1+12 (017-115 to 017-113) see Photo 84A & 84B	SPL			
2nd Quarter 2002	May 8, 2002	Prospect Ave., replaced pipe from STA 0+23 to 0+27 (017-114 to 017-113) see Photo 83A & 83B	4,320 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
2nd Qu	May 8, 2002	Hancock Av., replaced pipe from STA 0+47 to 0+49 (009-086 to 009-085A) see Photo 74A & 74B	720 gpd			
	May 7, 2002	Earle St., replaced pipe from STA 2+20 to 2+25 (017-013A to 017-011A) see Photo 82A & 82B	SPL			
	May 7, 2002	Earle St., replaced pipe from STA 0+50 to 0+52 (017-013A to 017-011A) see Photo 79A & 79B	SPL			
	May 6, 2002	Elm St., replace pipe from STA 0+02 to 0+06 (011-011A to 011-011) see Photo 86A & 86B	720 gpd			
	May 2, 2002	Sunset Dr., replaced pipe from STA 0+00 to 0+05 (011-016 to 011-015) see Photo 81A & 81B	2,880 gpd			
	May 1, 2002	Sunset Dr., replaced pipe from STA 2+72 to 2+77 (011-017 to 011-016) see Photo 80A & 80B	720 gpd		18,720 gpd	
1st Quarter 2002	March 28, 2002	Hancock Ave., removed service stub at STA 1+45 (009-087 to 009-086) see Photo 73A & 73B	200 gpd			
	March 21, 2002	Hancock Ave., replaced service wye at STA 1+06 (009-087 to 009-086) see Photo 72A & 72B	1,440 gpd			
	March 11, 2002	Sunset Dr., replaced pipe from STA 1+45 to 1+52 (009-028 to 009-027) see Photo 71A & 71B	2,880 gpd			
	March 6, 2002	Margery Rd., replaced pipe from STA 1+11 to 1+16 (009-024 to 009-025A) see Photo 65A & 65B	1,440 gpd			
	March 5, 2002	Candy Ln., replaced pipe from STA 1+64 to 1+68 (009-021 to 009-020) see Photo 62A & 62B	100 gpd			
	March 4, 2002	Candy Ln., replaced pipe from STA 0+26 to 0+51 (009-020 to 009-019) see Photo 67A & 67B	1,440 gpd			
	February 28, 2002	Candy Ln., removed stub at STA 1+96 (009-021 to 009-020) see Photo 61A & 61B	SPL			
	February 26, 2002	Candy Ln., replaced pipe from STA 1+58 to STA 1+64 (009-020 to 009-019) see Photo 63A & 63B	1,000 gpd			
	February 25, 2002	N. Pearl St., replaced pipe from STA 0+15 to STA 0+25 (009-78A to 009-79) see Photo 70A & 70B	600 gpd			
	February 21, 2002	Candy Ln., replaced pipe from STA 0+0 to STA 0+28 (009-021B to 009-021) see Photo 68A & 68B	200 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 2+63 to STA 2+68 (009-021 to 009-020) see Photo 69A & 69B	360 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 1+09 to STA 1+15 (009-021A to 009-021B) see Photo 64A & 64B	100 gpd			
	January 10, 2002	E. Westgate Dr., replaced pipe from STA 0+48 to STA 0+52 (007-1271 to 007-127G) see Photo 66A & 66B	1,440 gpd		11,200 gpd	
4th Quarter 2001	November 24, 2001	203 Prospect St., replaced broken service pipe at STA 0+10 (006-094 to 006-096)	SPL			
	November 19, 2001	Candy Lane, replaced pipe from STA 0+10 to 0+14 (009-041 to 009-040)	1,440 gpd			
	November 15, 2001	Candy Ln., replaced pipe from STA 2+31 to 2+37 (009-043 to 009-043A) see Photo 59A & 59B	SPL			
	November 14, 2001	Margery Rd., replaced pipe from STA 2+40 to 2+47 (009-042 to 009-041) see Photo 60A & 60B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 2+12 to 2+14 (009-058 to 009-056) see Photo 58A & 58B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+77 to 0+80 (009-058 to 009-056) see Photo 57A & 57B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+50 to 0+53 (009-058 to 009-056) see Photo 56A & 56B	SPL			
	October 17, 2001	191 Grove St., replaced broken pipe from approx. STA 0+40 to 0+46 (056+011 to 056+010)	SPL			
	October 9, 2001	West Street, replaced service wye at STA 0+30 (014-080 to 014-079) see Photo 55A	SPL		1,440 gpd	
3rd Quarter 2001	September 9, 2001	Fitzpatrick Cir, replaced pipe from STA 0+16 to 0+18 (005-104A to 005-104) see Photo 54B	SPL			
	August 20, 2001	Fitzpatrick Cir, replaced service wye at STA 1+32 (005-100 to 005-102) see Photo 52A & 52B	720			
	August 16, 2001	Fitzpatrick Cir, replaced service wye at STA 0+15 (005-098 to 005-099A) see Photo 48A & 48B	720			
	August 14, 2001	Fitzpatrick Cir, replaced service wye at STA 0+43 (005-104 to 005-102A) see Photo 53A & 53B	1,440			
	August 13, 2001	Fitzpatrick Cir, replaced wye & main from STA 1+12 to 1+20 (005-104A to 005-104) see Photo 49A & 49B	8,640			
	August 7, 2001	Sophia Ave., replaced pipe from STA 2+68 to 2+70 (005-140 to 005-136) see Photo 50A & 50B	SPL			
	August 3, 2001	Fitzpatrick Cir, replaced pipe from STA 2+38 to 2+46 (005-100 to 005-102) see Photo 51A & 51B	SPL		11,520 gpd	
r 2001	June 12, 2001	Oak Ridge Dr., replaced pipe from STA 1+40 to 1+55 (004-084 to 004-080) see Photo 47A & 47B	4,680 gpd			
	May 22, 2001	Crickett Rd., replaced pipe from STA 0+49 to 0+53 (004-057A to 004-053) see Photo 44A & 44B	7,200 gpd			
	May 21, 2001	Crickett Rd., replaced pipe from STA 1+82 to 1+86 (004-057A to 004-053) see Photo 45A & 45B	SPL			
	May 15, 2001	Shaws Parking Lot, removed entire 24" pipe (028-038 to 028-039)	SPL			
	May 15, 2001	Shaws Parking Lot, replaced entire 8" pipe (028-039 to 038-039A)	SPL			
	May 10, 2001	VFW off N. Quincy, repaired service pipe and wye (045-013 to 045-012) see Photo 46A & 46B	100,000 gpd			
	May 5, 2001	57 Wilder St., house service connected directly to drain pipe was removed see Photo 43	-			X

Table 1
City of Brockton, Massachusetts
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Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
2nd Quarter	April 25, 2001	Berglund Ave., replaced pipe from STA 2+10 to 2+13 (004-021 to 004-020) see Photo 37A & 37B	SPL			
	April 24, 2001	Berglund Ave., replaced pipe from STA 1+84 to 1+92 (004-021 to 004-020) see Photo 34A & 34B	SPL			
	April 23, 2001	Berglund Ave., replaced service wye at STA 2+35 (004-021 to 004-020) see Photo 36A & 36B	dripping			
	April 20, 2001	Benham St., replaced pipe from STA to () see Photo 38A & 38B	???			
	April 19, 2001	Miller Ave., Replaced pipe from STA to () see Photo 39A & 39B	???			
	April 12, 2001	Berglund Ave., replaced pipe from STA 1+71 to 1+74 (004-021 to 004-020) see Photo 35A & 35B	SPL			
	April 10, 2001	Thompson Ave., replaced pipe from STA 1+03 to 1+07 (004-017 to 004-016) see Photo 41A & 41B	SPL			
	April 9, 2001	Thompson Ave., replaced 6 " pipe from STA 0+38 to 0+44 (004-017 to 004-016) see Photo 42A & 42B	SPL			
1st Quarter 2001	April 2, 2001	Reservoir Road, replaced service at wye at STA 0+74 (002-104 to 002-103) see Photo 40A & 40B	1,440 gpd		113,320 gpd	
	March 27, 2001	Belmont and Ash St., replaced 8" pipe from STA 0+10 to 0+15 (018-072 to 018-073) see Photo 31A & 31B	SPL			
	March 19, 2001	Coventry Cir., replaced pipe from STA 0+91 to 0+97 (004-039A to 004-039) see Photo 34A & 34B	SPL			
	March 16, 2001	Coventry Cir., replaced pipe from STA 1+49 to 1+54 (004-039B to 004-039A) see Photo 32A & 32B	SPL			
	March 1, 2001	Coventry Cir., replaced pipe from STA 0+37 to 0+42 (004-039A to 004-039) see Photo 33A & 33B	14,400 gpd			
	February 27, 2001	Coventry Cir., replaced pipe from STA 0+70 to 0+76 (004-039B to 004-039A) see Photo 30A & 30B	SPL			
	February 26, 2001	Coventry Cir., replaced service connection at STA 0+12 (004-039B to 004-039A) see Photo 26A & 26B	5,760 gpd			
	February 20, 2001	Colonel Bell Dr., replaced pipe from STA 2+41 to 2+44 (004-007 to 004-006) see Photo 29A & 29B	2,880 gpd			
	February 12, 2001	Coventry Cir., replaced service connection at STA 1+44 (004-039A to 004-039) see Photo 27A & 27B	4,320 gpd			
	February 9, 2001	Coventry Cir., replaced pipe from STA 1+79 to 1+82 (004-039A to 004-039) see Photo 28A & 28B	4,320 gpd			
	January 30, 2001	Colonel Bell Dr., replaced service connection at STA 1+16 (004-036 to 004-024) see Photo 22A & 22B	4,320 gpd			
	January 29, 2001	Colonel Bell Dr., removed service wye at STA 1+04 (004-025 to 004-026) see Photo 21A & 21B	SPL			
	January 31, 2001	Colonel Bell Dr., removed service wye at STA 0+33 (004-008 to 004-007) see Photo 23A & 23B	SPL			
	January 23, 2001	Colonel Bell Dr., replaced pipe from STA 1+34 to 1+37 (004-025 to 004-026) see Photo 25A & 25B	SPL			
	January 9, 2001	Colonel Bell Dr., replaced pipe from STA 0+62 to 0+64 (004-004 to 004-003) see Photo 24A & 24B	2,160 gpd		38,160 gpd	
4th Quarter 2000	Nov. 30, 2000	West Haven Dr., replaced service connection at STA 0+44 (001-029 to 001-028) see Photo 12A & 12B	720 gpd			
	Nov. 28, 2000	West Haven Dr., replaced 7' of 8 "pipe, STA 1+85 to 1+92 (001-029 to 001-028) see Photo 20A & 20B	47 gpd *			
	Nov. 16, 2000	Elliot St., replaced 8' of broken pipe at house #184 (042-121 to 042-122) see Photo 15A & 15B	2,880 gpd			
	Nov. 14, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+52 (001-028 to 001-026) see Photo 19A & 19B	SPL			
	October 26, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+89 (001-028 to 001-026) see Photo 17A & 17B	SPL			
	October 23, 2000	Darren Dr., replaced 3 ' of cracked pipe STA 1+65 (001-028 to 001-026) see Photo 18A & 18B	SPL			
	October 17, 2000	Darren Dr., replaced 2' of broken pipe at STA 0+08 (001-028 to 001-026) see Photo 16A & 16B	SPL			
	October 5, 2000	Perkins Ave., replaced wye at STA 2+96 (063-009B to 063-005) see Photo 13A & 13B	SPL			
	October 3, 2000	Perkins Ave., plugged service wye at STA 3+30 (063-009B to 063-005) see Photo 14A & 14B	SPL			
3rd Quarter 2000	Sept. 15, 2000	Fitzpatrick Circle replaced 7' of 8" VCP	SPL		3,647 gpd	
	August 21, 2000	Vine St., replaced broken pipe and service STA 0+99 to 1+01 (037-093 TO 037-092) see Photo 8A & 8B	SPL			
	August 17, 2000	12 Orchard Ave., removed service connection at STA 0+79 (037-128 to 037-127) see Photo 9A & 9B	180 gpd			
	August 18, 2000	14 Orchard Ave., replaced service connection at STA 2+28 (037-128 to 037-127) see Photo 10A & 10B	SPL			
	July 29, 2000	Van Cliff Ave., replaced service at STA 0+31 (032-059 to 032-052)	SPL			
	July 27, 2000	Paulin Ave., replaced service at STA 0+93 (065-070 to 065-069) see Photo 11A & 11B	720 gpd			
	July 26, 2000	Burrit St., replaced service & broken pipe from STA 2+18 to STA 2+19 (048-051 to 048-050)	2,160 gpd			
	July 19, 2000	Roan Crt., replaced service connections at STA 0+27 & 0+29 (019-041 to 019-040) see Photo 1a & 1b	SPL			
	July 19, 2000	Roan Crt., replaced service connection at STA 0+61 (019-041 to 019-040) see Photo 2a & 2b	SPL			
	July 18, 2000	Albany St., replaced leaking joints at STA 2+85 (001-019 to 001-018) see Photo 3a & 3b	2,880 gpd			

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History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
3rd Quarter 2000	July 13, 2000	Stubb Rd., replaced service connection at STA 0+39 (009-026 to 009-024) see Photo 5a & 5b	360 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 1+03 (009-026 to 009-024) see Photo 6a & 6b	360 gpd			
	July 12, 2000	Stubb Rd., replaced broken pipe from STA 0+18 to 0+20 (009-026 to 009-024) see Photo 7a & 7b	2,880 gpd			
	July 11, 2000	Windsor Cir., Replaced a service tap at STA 0+05 (031-092 to 031-091) see Photo 4A & 4B	28,800 gpd		38,340 gpd	
2nd Quarter 2000	May 2000	Winnifred Road, service replacement at STA 1+32 (015-025 to 015-024)	360 gpd			
	May 2000	Fitzpatrick Avenue, replaced 300' of 8-in VC pipe that was defective (005-145A to MH 005-143)	2,010 gpd *			
	April 13, 2000	Main Interceptor infiltration leak at Meadow Lane bridge crossing	45,000 gpd			
	?	Embassy Nursing Home had direct sewer connection to surface water			47,370 gpd	X
1st Quarter 2000					0 gpd	
4th Quarter 1999	December 1999	Howard Street Sewer Replacement, 4,460 ft	29,882 gpd *			
	?	Snell Place Sewer Replacement of 15 ft	101 gpd *			
					29,983 gpd	
3rd Quarter 1999	July 1999	Country Club Lane Sewer Replacement of 400 ft	2,680 gpd *			
	July 1999	Country Club Place Sewer Replacement of 400 ft	2,680 gpd *			
					5,360 gpd	
2nd Quarter 1999	April 5, 1999	Belair St. MH 004-016 to 004-015 replaced 10' of 10" pipe between STA 1+83 & 1+89	67 gpd *			
					67 gpd	
1st Quarter 1999	March 29, 1999	Belair St. MH 004-016 to 004-015 replaced 6' of 10" pipe & 1 service between STA 1+37 & 1+41	40 gpd *			
	March 22, 1999	Belair St. MH 017-010B to 017-010A replace 6' of 10" pipe starting @ STA 0+28	40 gpd *			
					80 gpd	
4th Quarter 1998	September 1998	Warren & Keith, 60 ft west (Holmgren project)	402 gpd *			
	September 1998	Warren & W. Chestnut, 74 ft west (Holmgren project)	496 gpd *			
	September 1998	Warren & Calmar, 74 ft east (Holmgren project)	496 gpd *			
	September 1998	Warren & Market to Copeland, 1,135 ft (Holmgren project)	7,605 gpd *		8,999 gpd	
1st, 2nd, 3rd Quarter 1998	1998	Ellsworth (cured in place lining) 522 linear feet (017-125 to 017-118)	3,497 gpd *			
	January 1998	Disconnected CB connection to sewer at Stonehill College (at Duffy Academic Center)	41,200 gpd *			
					44,697 gpd	
4th Quarter 1997	December 1997	Warren & Clifton, north to Nilsson, 3,000 ft	20,100 gpd *			
					20,100 gpd	
1st Quarter 1997	August 1, 1997	137 Perkins Ave, broken sewer leaking into a broken drain below				X
	?	Sewer overflow disconnected at siphon on Bartlett St.				X

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			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
3rd Quarter 1995	?	Sewer overflow disconnected on the East Side Interceptor				X
	August 1, 1997	Matfield Woods Estates, possible infiltration from a force main crossing of a brook			0 gpd	X
1st & 2nd Quarter 1997	April 1997	Sawtell Ave. Sewer Replacement of 300 ft with 8" PVC (between Glendale St. and Alden St.)	2,010 gpd *			
	March 1997	Wilmington St. Sewer Replacement of 100 ft with 15" PVC	670 gpd *			
	January 27, 1997	150 Lisa Drive Replaced 8 ft of sewer with 8" PVC	54 gpd *			
		Market Street Sewer Replacement			2,734 gpd	
4th Quarter 1996	October 1996	Oak Green Apartments off Reservoir Street, disconnected a sewer MH from draining a surface water	900,000 gpd			
	October 1996	Biscayne Street Disconnected this abandoned private street from the city sewer because of several defects and constant I/I.	570,000 gpd		1,470,000 gpd	
3rd Quarter 1996	August 1996	Howard Street Bridge Reconstruction, replaced 150 ft under bridge with 12" DI	1,005 gpd *			
	August 1996	Terminal Place on Evans St., replaced 300 ft of sewer with 8" PVC	2,010 gpd *			
					3,015 gpd	
2nd Quarter 1996	May 1996	- Replaced 50 ft from Warren Ave. going west with 8" PVC	335 gpd *			
	May 1996	- Replaced 250 ft from intersection of Copeland with 12" DI	1,675 gpd *			
	May 1996	- Replaced 240 ft from Warren Ave. going east with 24" PVC	1,608 gpd *			
					3,618 gpd	
1st Quarter 1996	March 22, 1996	Augusta Ave. replaced 6 ft with 8" PVC	40 gpd *			
	February 29, 1996	Ash St. and Pleasant St. replaced 25 ft with 8" PVC	168 gpd *			
					208 gpd	
4th Quarter 1995	Dec. 27, 1995	68 Belair St. replaced 18 ft with 10" PVC	121 gpd *			
					121 gpd	
	Jan.-May 1995	Howard Street Interceptor Project - Replaced 838 ft on Intervale St. with 21" PVC - Replaced 244 ft on Dyer St. with 21" PVC - Replaced 1,511 ft on Winter St., Douglas St., and Oscar Ave. with 18" PVC	5,615 gpd * 1,635 gpd * 10,124 gpd *			
	May 6, 1995	Rainville St. replaced 6 ft with 15" PVC	40 gpd *			
	April 1995	Sump pump removed at 55 Albert St.		8,640 gpd **		
	April 1995	Sump pump removed at 115/117 Ames St.		8,640 gpd **		
	April 1995	Sump pump removed at 234 Ames St.		8,640 gpd **		
	April 1995	Sump pump removed at 266 Ames St.		8,640 gpd **		
	April 1995	Sump pump removed at 60 Arthur St.		8,640 gpd **		
	April 1995	Sump pump removed at 122 Arthur St.		8,640 gpd **		
	April 1995	Sump pump removed at 21 Baltic Ave.		8,640 gpd **		
	April 1995	Sump pump removed at 70 Baltic Ave.		8,640 gpd **		
	April 1995	Sump pump removed at 185 Baltic Ave.		8,640 gpd **		
	April 1995	Sump pump removed at 155 Alden St.		8,640 gpd **		
	April 1995	Sump pump removed at 116 Ames St.		8,640 gpd **		
	April 1995	Sump pump removed at 260 Ames St.		8,640 gpd **		
	April 1995	Sump pump removed at 292 Ames St.		8,640 gpd **		

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				Inflow Removed	Total I/I per quarter		
	April 1995	Sump pump removed at 105 Arthur St.		8,640 gpd **			
	April 1995	Sump pump removed at 136 Arthur St.		8,640 gpd **			
	April 1995	Sump pump removed at 40 Baltic Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 77 Baltic Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 38 Banks St.		8,640 gpd **			
	April 1995	Sump pump removed at 65 Lawton Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 35 Louis St.		8,640 gpd **			
	April 1995	Sump pump removed at 22 Merton St.		8,640 gpd **			
	April 1995	Sump pump removed at 58 Merton St.		8,640 gpd **			
	April 1995	Sump pump removed at 96 Merton St.		8,640 gpd **			
	April 1995	Sump pump removed at 116 North Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 154 North Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 37 Saint Casimir St.		8,640 gpd **			
	April 1995	Sump pump removed at 30 Louis St.		8,640 gpd **			
	April 1995	Sump pump removed at 29 Merton St.		8,640 gpd **			
	April 1995	Sump pump removed at 68 Merton St.		8,640 gpd **			
	April 1995	Sump pump removed at 112 North Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 122 North Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 165 Ridge St.		8,640 gpd **			
	April 1995	Sump pump removed at 24 Vermont Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 64 Banks St.		8,640 gpd **			
	April 1995	Sump pump removed at 11 Bellevue Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 124 Bellevue Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 43 Claremont St.		8,640 gpd **			
	April 1995	Sump pump removed at 107 Hovendon Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 115 Hovendon Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 164 Hovendon Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 247 Howard St.		8,640 gpd **			
	April 1995	Sump pump removed at 10 Intervale St.		8,640 gpd **			
	April 1995	Sump pump removed at 19 Westford St.		8,640 gpd **			
	April 1995	Sump pump removed at 91 Banks St.		8,640 gpd **			
	April 1995	Sump pump removed at 117 Bellevue Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 59 Bonney St.		8,640 gpd **			
	April 1995	Sump pump removed at 25 Granite St.		8,640 gpd **			
	April 1995	Sump pump removed at 114 Hovendon Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 121 Hovendon Ave.		8,640 gpd **			
	April 1995	Sump pump removed at 243 Howard St.		8,640 gpd **			
	April 1995	Sump pump removed at 267 Howard St.		8,640 gpd **			
	April 1995	Sump pump removed at 15 Intervale St.		8,640 gpd **			
	April 11, 1995	240 Colonel Bell Drive replaced 6 ft with 8" PVC	40 gpd *				
	January 1, 1995	Sheridan St. replaced 10 ft with 10" PVC	67 gpd *				
	September 7, 1994	Braemoor Rd. replaced 8 ft with 8" PVC	54 gpd *				
	August 24, 1994	39 Southworth St. replaced 10 ft with 8" PVC	67 gpd *				
	August 1994	Fisk St. Sewer Replacement of 50 ft with 8" PVC	335 gpd *				
	June 6, 1994	Market St. replaced 200 ft with 10" PVC	1,340 gpd *				

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Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
	June 1994	I/I Rehabilitation Conducted by Atlantic Development Corporation - Disconnected driveway drain from sewer at 28 Amark St. - Disconnected driveway drain from sewer at 306 Field St.		4,320 gpd *** 4,320 gpd ***		
	Dec. 15, 1993	16 Hill St. replaced 8 ft with 8 PVC	54 gpd *			
	April 13, 1990	249 Boylston St. replaced 8 ft with 8" PVC	0 gpd *			
	May 1, 1990	Pleasant St. at Belair St. replaced 18 ft with 10" PVC	121 gpd *		477,412 gpd	

* I/I estimate based on average I/I rate of 6.7 gpd/ft.

** I/I estimate based on pump rate of 6 gpm.

*** I/I estimate based on pump rate of 3 gpm.

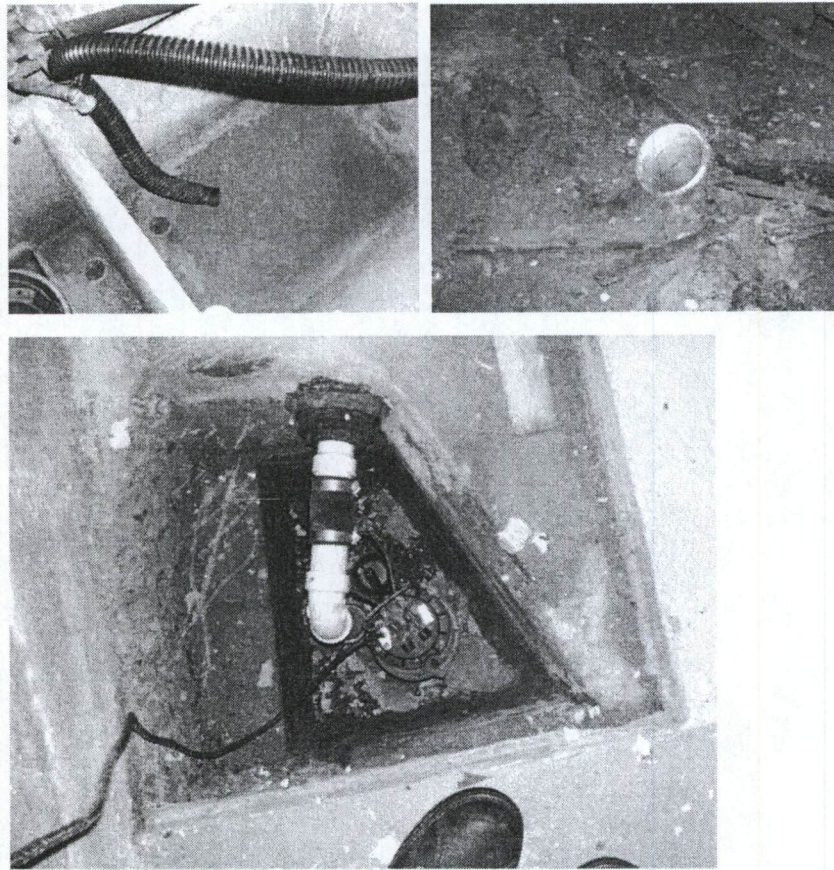
SPL: signs of previous leakage

Estimated Total Infiltration Removed: 4,085,925 gpd
Estimated Total Inflow Removed: 4,427,788 gpd
Estimated Total I/I Removed: 8,513,713 gpd

City of Brockton, Massachusetts

Private Inflow Reduction Program

December 2009



Final Report

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Section 1

Private Inflow Reduction Program 2009

1.1 Introduction

Early efforts regarding City of Brockton House-to-House Inspection Program (HTH Program) commenced subsequent to the North Main Interceptor Area Infiltration/Inflow Analysis and Sewer System Evaluation Survey in 1996. These inspections focused on the North Main Interceptor area. The Brockton House-to-House Inspection Program of 1999 approached locations throughout specific sub-areas within the City. The 2006 program concentrated efforts on those locations within the 1999 program sub-areas that were not inspected during the 1999 program and subsequent correction programs. The 2007 Private Inflow Removal Program focused on enforcing remediation actions on those illegal locations identified in the 2006 House-to-House Inspection Program.

During heavy rain events or snow melts, excessive inflow can increase wastewater flows up to several times the average daily flow. When the combined rainwater and sewage volume exceeds the sewer capacity, two problems may occur: first, the sewer system may surcharge causing sewage backups into basements (through bathroom facilities or open plumbing cleanouts) and manholes (i.e., sanitary sewer overflows); second, storm water flows are unnecessarily transported to and treated at the Wastewater Treatment Facility in Brockton, resulting in extra costs to sewer rate payers and potential issues with capacity and discharges at the plant. The purpose of the inspections was to identify sump pumps and roof leaders connected to the sewer system in order to redirect these sources elsewhere.

The City of Brockton has been working for many years to remove illicit connections to the sewer system. The goals of the 2009 Private Inflow Reduction Program were to continue addressing illicit connection locations, to address suspected locations identified in previous House-to-House Inspection Programs, and to resume enforcing the removal of inflow sources into the wastewater collection system. Illicit inflow sources include sump pumps, yard drains/floor drains, roof drains/leaders, or catch basins improperly connected to the sewer system.

The completion of the 2009 HTH Program satisfies the requirements of the 2006 Consent Decree; specifically Section VIII Remedial Measures, Paragraphs 37 and 38 pertaining to the I/I removal plan.

1.2 Methods

The 2006 HTH Program generated a list of locations with identified or suspected inflow sources. During the 2009 program, a certified letter was sent to each location (both tenants and homeowners). Samples of these letters can be found in Appendix A. Appendix B contains copies of the actual letters that were sent.

The list was divided into the following three categories:

- Non-Responsive locations are locations that were identified and notified under previous studies and have been unresponsive to attempted communication by the city;
- Work Pending locations are locations where illicit connections were identified under previous studies and the owner/resident had contacted the City. These locations received an initial re-inspection to confirm the illicit connection, but had not yet removed the connection;
- Suspected Locations are locations identified under the 2006 HTH Program that were suspected to have an illicit connection.

Each letter included contact information for scheduling an appointment for a home inspection (CDM Hotline), and a copy of the Brockton Sewer Use Ordinance. It was noted that an inspection was required to identify the problem, followed by a re-inspection, if necessary, to confirm that the problem has been addressed. A copy of the Sewer Use Ordinance included with each letter can be found in Appendix A.

Some certified letters were returned to the City because no one was willing or available to sign for the letter. Other residents received the letter but did not call to schedule an inspection. In both of these cases, a second letter was hand served to the location. CDM also went to the non-responsive houses to attempt an inspection. If no one was home during the inspection attempt, a drop notice (Appendix C) was left at the property.

Property inspections were scheduled several days a week at various times throughout the program, based on the schedules of property owners. CDM inspectors and Brockton Sewer Department personnel were both present for inspections. Inflow sources were evaluated, and several alternatives for corrective action were identified for the property owner. A sketch of the system was made, and photographs were taken to document existing conditions. The property owner then coordinated corrective work, either on their own or with the help of contractors. Once repairs were made, a final inspection was scheduled to confirm and document the work. The owner was given 60 days to correct any connection problems.

This program also consisted of smoke testing to determine the connection of various suspected roof leaders, driveway, yard, and/or floor drains. If a suspected location was found to be in violation, a follow up violation letter was sent.

A confirmation of compliance letter was sent to each address confirming their compliance with the Brockton Sewer Use Ordinance. These letters are included in Appendix B. The results of all inspections were stored in the Brockton House-to-House Inspection Program database on the City's Panasonic-18 Toughbook.

Section 2

Sanitary Sewer Smoke Testing

Sanitary sewer smoke testing is used to identify illegal roof leaders, yard, basement, and/or sump pump drain connections into the sanitary sewer system. Smoke testing consists of placing a non toxic smoke generating device into the sewer system through an open sewer manhole and allowing the smoke to circulate through the system with the use of blower. Smoke is then released through any open source that is connected to the sewer system. Testing was performed on buildings where illegal sewer connections were suspected during both the City-Wide House-to-House (HTH) Program of 2006 and by the Private Inflow Reduction Program of 2007.

2.1 Methodology

Each building that was scheduled to be smoke tested was previously investigated, and was found to have a drain line or a sump pump with piping that was suspected to tie into the sewer system. The owner of an identified property and the Brockton Fire Department were both notified that smoke testing would occur at the selected locations. The City also released a notice through local media which summarized the smoke testing procedure and the streets where smoke testing was to be performed. All calls on the smoke testing procedure were directed to the CDM Hotline to answer questions or schedule internal inspections. Homeowners were informed that:

1. Non-hazardous smoke could permeate into their house if they had an open sewer pipe cleanout;
2. Smoke could be observed emitting from street manholes, roof drains, or floor drains;
3. Minor traffic diversions may be in place for a period of 1 to 2 hours.

The goal of smoke testing was to identify illegal connections and cross connections into the sewer system.

2.2 Testing Results

A total of 63 buildings were suspected of having illegal connections that could be confirmed with smoke testing. Many of the suspected illegal connections were roof leader drains and basement stairwell drains. Each suspected connection was investigated by smoke testing, discussing the connection with the property owner, and by performing a visual inspection. CDM and the City inspectors, with the assistance of the homeowner, determined whether the stairwell or roof leader drains were connected into a drywell or directly into the sanitary sewer system. Many of the drains were clogged with debris and appeared to be not operational. Of the 63 properties that were inspected, 57 properties were in compliance, 1 property was not in compliance, and 5 properties were undetermined. The 5 undetermined properties were either deemed unsuitable for smoke testing, or results of smoke testing were inconclusive. Table 2-1 in Appendix D lists a summary of smoke testing results.

Section 3

Private Inflow Reduction Program Summary

The Private Inflow Reduction Program, conducted from September 2009 until November 2009, was initiated following the City-Wide House-to-House Inspection (HTH) Program conducted by CDM in the summer and fall of 2006 and by the follow up Private Inflow Reduction Program conducted in the summer and fall of 2007. The goals of this current program were to contact those locations found in violation which had not corrected the issue in previous programs, to contact locations suspected to be in violation during the 2006 HTH inspections, and to assist residents with the removal of confirmed inflow sources (primarily sump pumps). The completion of this work satisfies the requirements of the 2006 Consent Decree, relative to the I/I removal plan.

3.1 Program Results

Table 3-1 shows the results of 2007 Private Inflow Reduction Program upon which the 2009 program was based.

Table 3-1: 2007 Private Inflow Reduction Program Results

<i>Property Status</i>	<i>Number of Properties</i>
Properties with Completed Work, in Compliance	43
Properties with Corrective Work Pending	27
Properties with Further Inspection Need	4
Properties with No Response to Letter	35
Total Estimated Quantity of Inflow Removed 2007 (Based on estimated pump flows)	242,068 gpd

The majority of responses from property owners to this 2009 Private Inflow Reduction Program were positive, and significant progress was achieved. As the program progressed, the original list was revised and supplemented based on updated addresses and property owner information. A summary of the results of the 2009 program is shown in Table 3-2.

Table 3-2: 2009 Private Inflow Reduction Program Results

<i>Property Status</i>	<i>Number of Properties</i>
Properties in Compliance	109
Properties with Corrective Work Pending	19
Properties with No Response to Letter	32
Properties with Connection Not Determined	7
Total Estimated Quantity of Inflow Removed 2009 (Based on estimated pump flows)	156,500 gpd

The corrective work performed on properties has resulted in a significant reduction of the potential daily inflow to the municipal sewer system. This quantity is based on estimated pump rates which were measured on an individual basis. The Massachusetts Department of Environmental Protection 1993 Guidelines for Performing Infiltration/Inflow Analyses and Sewer System Evaluation Survey specifies that a range of 3 to 6 gallons per minute (gpm) be used when estimating inflow supplied from sump pumps and from basement floor drains (see Appendix E). This range, in addition to engineering estimation, provided the basis for estimating total inflow from these properties.

Table 3-3 in Appendix F lists all properties which have completed remediation work. There are several properties which have not completed work required to be in compliance with the program. These locations are summarized in Table 3-4 and Table 3-5 in Appendix F. Table 3-4 identifies properties that responded to the first notice and were inspected, but a follow-up inspection has not been scheduled to confirm compliance. Table 3-5 identifies properties which did not respond to any notice. Table 3-6 lists those locations where inspections could not confirm the nature of a connection.

3.2 Conclusion

The City has proactively addressed I/I issues for many years, as demonstrated by the multi-year HTH Program. Inspection program records should be maintained for future reference, and illicit connections discovered in the future should be addressed in a similar fashion.